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This publication is the Air Force supplement to the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01, *Joint Capabilities Integration and Development System* (JCIDS) and the accompanying Joint Staff (JS)/J8 JCIDS Manual, *Manual for the Operation of the Joint Capabilities Integration and Development System*. It implements Air Force Policy Directive (AFPD) 10-6, *Capabilities Requirements Development.* It also implements JCIDS for the Air Force and establishes the guidelines, policies, and procedures for defining, developing, documenting, validating, approving, and managing Air Force operational capability requirements. This AFI must be used with the policies in Department of Defense Directive (DoDD) 5000.01, *The Defense Acquisition System*, and DoD Instruction (DoDI) 5000.02, *Operation of the Defense Acquisition System* (collectively called the DoD 5000 series). This AFI must be used in conjunction with AFI 63-101/20-101, *Integrated Life Cycle Management;* AFI 99-103, *Capabilities-Based Test and Evaluation;* AFI 63-131, *Modification Management*; AFI 63-114 *Quick Reaction Capability Process*; and AFI 65-601, Volume 3 *The Air Force Budget Corporate Process.* This AFI applies to all Regular Air Force, Air Force Reserve, and Air National Guard personnel who develop, review, approve, manage, or use documents in the Air Force Operational Capability Requirements Development Process. This instruction applies to all

unclassified, collateral, Sensitive Compartmented Information (SCI) and Special Access Programs (SAP). Adherence is mandatory, except when statutory requirements, DoD, or Joint Staff directives override. If there is any conflicting guidance between this AFI and DoD 5000 series or CJCSI 3170.01, the DoD or CJCS guidance shall take precedence. This AFI may be supplemented at any level, but all supplements that directly implement this Instruction must be routed to AF/A5R for coordination before certification and approval. Refer recommended changes and questions about this publication to Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command. Guidance for waiver requests is provided in paragraph 1.6 of this publication. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS).

(AFSPC) This Supplement implements and extends the guidance of Air Force Instruction (AFI) 10-601, *Operational Capability Requirements Development* in conjunction with AFI 63-101_20-101, *Integrated Life Cycle Management* and AFI 63-131, *Modification Management.* It defines responsibilities for developing and obtaining approval of Initial Capabilities Documents (ICD), Capability Development Documents (CDD), Capability Production Documents (CPD), Joint and AF Doctrine, Organization, Training, Materiel, Leadership and education, Personnel and Facilities, Policy (DOTMLPF-P) Change Recommendations (DCR) and related documents. This instruction also establishes the basis for Integrated Concept Teams and Training Planning Teams (ICT/TPT) and empowers Requirements Team Leads (RL) to lead the requirements generation process and implement the Joint Capabilities Integration and Development System (JCIDS)-directed documentation of requirements. Requirements validation for system modifications is accomplished IAW AFI 63-131. This instruction applies to Headquarters Air Force Space Command (HQ AFSPC) and its assigned Numbered Air Forces (24th Air Force and 14th Air Force), the Space and Missile Systems Center (SMC), and the Air Force Network Integration Center (AFNIC). AF Life Cycle Management Center (AFLCMC) is mentioned for information only, as they interface with HQ AFSPC for program management. AFLCMC responsibilities listed are IAW AFI 63-101_20-101. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) Form 847, Recommendation for Change of Publication; route the AF Form 847 from the field through the appropriate functional' s chain of command. This publication applies to all Regular Air Force, Air Force Reserve, and Air National Guard personnel within AFSPC who develop, review, approve, manage, or use documents in the Air Force operational capability requirements development process. This publication may be supplemented at any level, but all direct Supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Submit requests for waivers through chain of command to the appropriate Tier waiver approval authority, or alternately to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records,* and disposed of in accordance with the AF Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. The AFI incorporates changes necessary to align with recent updates to DoD 5000 series and CJCSI 3170.01 policies, and implements requirements guidance developed as a result of Air Force acquisition improvement events. Summary of major changes include: changes made in Guidance Memorandum to AFI 10-601 dated 15 Mar 12, changes to AF Modification Management, and expanded scope of the document staffing and Urgent Operational Needs (UON), Joint Urgent Operational Needs (JUON), and Joint Emergent Operational Needs (JEON) processes. Additional language was added to reflect changes in CJCSI 3170.01 and the JCIDS Manual to include changes in JCIDS Documents, changes in policy for Joint Staff endorsements and certifications, changes for the Analysis of Alternatives (AoA) review process.

Chapter 1

VISION & IMPLEMENTATION

1.1. Purpose. This chapter provides an overview of the Joint Capabilities Integration and Development System (JCIDS) requirements process and highlights the interdependent relationship between the Requirements process and the Defense Acquisition System, Test and Evaluation and the Planning, Programming, Budgeting and Execution (PPBE) processes.

1.2. Vision. The intent of this instruction is to facilitate timely development and fielding of optimized, affordable and sustainable operational systems needed by the warfighter. The goal is to fulfill stated defense strategy needs with effects based, capabilities-focused materiel and non-materiel solutions. The approach to identifying capability requirements should not presuppose a specific solution or end item. It should provide information related to forms and functions of potential solutions that provide suitable, safe, and interoperable increments of capability for the warfighter that are affordable throughout the life cycle and mitigate mission risk.

1.2.1. Strategic Guidance. The overarching strategic guidance detailed in the National Security Strategy, the National Strategy for Homeland Security, the National Defense Strategy, the Quadrennial Defense Review, and the National Military Strategy provide the overarching description of the Nation's defense interests, objectives and priorities. Additionally, the Defense Planning Guidance, the Guidance for the Employment of the Force, the Chairman's Risk Assessment and the Joint Strategic Capabilities Plan contain further guidance for objectives and priorities and provide a framework for an assessment of the Air Force's (AF) needed capabilities.

1.2.2. Joint Operational Context. Identified capability requirements must be traceable to Unified Command Plan assigned missions, approved Operations Plans/Contingency Plans, Joint Concepts, Integrated Security Constructs which are part of the DoD Analytic Baseline, and/or other driving factors. Capability requirements for Information Systems (IS) should use the existing DoD Information Enterprise Architecture and related solution architectures. Requirements must be defined in the lexicon established for the Universal Joint Tasks and relevant range of military operations. This operational context information forms the basis for validating requirements and associated gaps and risks, and supports recommendations for capability solutions.

1.2.3. Service Core Functions. Identification of capability requirements and associated gaps begins with assigned organizational functions, roles, missions, and operations in the context of the overall strategic and operational goals. AF requirements derived from the Core Function Master Plans (CFMP) take into account capability gaps, a range of potential solutions (both non-materiel and materiel), an assessment of operational risk, and affordability.

1.3. JCIDS. The AF requirements process supports and implements the overarching joint guidance, JCIDS, as described in CJCSI 3170.01, *Joint Capabilities Integration and Development System* and the accompanying Joint Staff (JS)/J8 JCIDS Manual. The JCIDS process supports identifying, assessing, validating, and prioritizing joint military capability requirements while considering the full range of materiel and non-materiel solutions (i.e., Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities and

Policy (DOTmLPF-P)). All non-materiel solutions should be explored and, if possible, implemented before initiating a materiel solution. Operational capabilities must be defined within the "art of the possible" and grounded within real world constraints of time, technology, and affordability.

1.3.1. Joint Capability Areas (JCA). JCIDS uses JCAs as an organizing construct. This provides portfolios with similar capabilities functionally grouped to support capability analysis, strategy development, investment decisions, risk assessment and prioritization and capabilities- based planning and assessments. See the JS *Joint Capabilities Areas* for additional information.

1.3.2. Requirements Documents Overview. Listed below are the different categories of requirements documents which are used to articulate capability requirements, associated capability gaps and to submit recommendations for review and validation.

1.3.2.1. Capabilities-Based Assessment (CBA). The CBA forms the analytic basis for operational capability requirements development and is an integral part of the capabilities-based planning process. The results of the CBA are captured in the CBA Final Report. See **Chapter 4** for additional information on CBAs.

1.3.2.2. The Initial Capabilities Document (ICD)/Information Systems-Initial Capabilities Document (IS-ICD). An ICD documents new capability requirements and associated gaps and the Sponsor's intent to resolve those gaps through solutions which are materiel, non-materiel or a combination of both. See **Chapter 4** for additional information on ICDs.

1.3.2.3. Analysis of Alternatives (AoA). The AoA is an analytical comparison of the operational effectiveness, suitability, risk, and life cycle cost of alternatives that satisfy validated capability needs (usually stipulated in an approved ICD). The AoA process consists of three distinct documents; AoA Study Guidance, AoA Study Plan, and the AoA Final Report. See **Chapter 4** for additional information on AoAs.

1.3.2.4. Draft Capability Development Document (CDD). A Draft CDD is developed ((pre-Milestone (MS) A)) to inform the Technology Development Strategy and Request for Proposals for the Technology Development Phase (which follows the MS A acquisition decision). See **Chapter 4** for additional information on CDDs.

1.3.2.5. The CDD/Information Systems-Capability Development Document (IS-CDD). A CDD defines the authoritative, measureable and testable parameters ((Key Performance Parameters (KPPs), Key System Attributes (KSAs), and other attributes)) necessary for the Engineering Manufacturing and Development Phase of the acquisition program. See **Chapter 4** for additional information on CDDs and IS-CDDs.

1.3.2.6. The Capability Production Document (CPD). A CPD defines the authoritative, measureable and testable parameters (KPPs, KSAs, and other attributes) necessary for the Production and Deployment phase of the acquisition program. See **Chapter 4** for additional information on CPDs.

1.3.2.7. The Joint or AF DOTmLPF-P Change Recommendation (Joint or AF DCR). A Joint/AF DCR documents the intent to resolve gaps with a non-materiel approach,

recommending changes to the Joint/AF in one or more of the DOTmLPF-P areas. See **Chapter 4** for additional information on Joint/AF DCRs.

1.3.2.8. AF Form 1067, *Modification Proposal*. The Air Force has established an additional means to document capability requirements and associated capability gaps. The AF Form 1067 can be used to document the submission, review and approval of requirements for modifications to fielded Air Force systems. See **Chapter 6** for more details on modifications.

1.3.2.9. The Urgent Operational Need (UON), Joint Urgent Operational Need (JUON) and Joint Emergent Operational Need (JEON). An urgent operational need request documents a requirement driven by an ongoing (UON/JUON) or emergent (JEON) contingency operation, which if not addressed, would result in unacceptable risk to life or combat mission accomplishment. Expedited staffing and review procedures are used for urgent need requests. See **Chapter 7** for additional information on UONs/JUONs/JEONs.

1.3.3. Joint Staffing Designators (JSD). A JSD is assigned to all JCIDS documents by the JS/J8 Gatekeeper, based on the actual/potential Acquisition Category (ACAT) and Joint Staff equities (need for endorsements/certifications, special interest, previous guidance). The JSD sets the document staffing path/timeline and identifies validation authority. The JSD, along with the ACAT level, also provides the basis for determining the level of oversight and decision authority in the analytical efforts supporting the development of operational capability requirements. There are five Joint Staffing Designators: (1) Joint Requirements Oversight Council (JROC) Interest, (2) Joint Capability Board (JCB) Interest, (3) Joint Integration, (4) Joint Information and (5) Independent. JROC Interest and Joint Capability Board (JCB) Interest require component level and joint validation, i.e. Air Force Requirements Oversight Council (AFROC) followed by JCB/JROC. Joint Integration, Joint Information and Independent require component level validation only, i.e. AFROC. See **Chapter 5** for additional information on JSD.

1.3.4. Sources of AF Requirements Documents. Listed below are the sources of AF requirements documents:

1.3.4.1. Capabilities-Based Planning. Capabilities-based planning is the process of forecasting under uncertainty to provide capabilities that address warfighter effects and operational environments. The AF uses a Service-wide capabilities-based planning process where Core Function Lead Integrators (CFLI) develop their respective CFMPs based on AF strategic guidance, operational expertise and analysis. The CFLIs then prioritize the individual capabilities within their own CFMPs based on risk and fiscal projections through the planning period. Through CFLI planning, capability shortfalls, capability gaps and DOTmLPF-P opportunities are identified as potential inputs into the JCIDS process. CFLI assessments are also used to guide capabilities-based assessments (CBA).

1.3.4.2. Capabilities-Based Assessment (CBA). The CBA forms the analytic basis for operational capability requirements development and is an integral part of the capabilities-based planning process. In most situations, the CBA is the first step in the requirements process. The CBA defines the capability required and any capability

gaps/shortfalls identified during the assessment. Additional details on the CBA are provided in **Chapter 4.**

1.3.4.3. Top-Down Direction. Higher authority may direct a sponsor to initiate the development and fielding of an operational system to meet warfighter needs. Written direction from the Chief of Staff of the Air Force (CSAF) or higher authority fulfills the AFPD 10-6, *Capability Requirements Development* requirement for identifying a capability need. However, the designated sponsor is still responsible for conducting appropriate supporting analysis and producing the necessary operational capability requirements documents to support development and/or fielding and sustainment of an operational system. Top-Down Direction requests will be routed through the AFROC for requirements validation and will be processed via the QRC Process upon validation and CSAF signature (See **Chapter 7**).

1.3.4.4. Combatant Command (CCMD) Needs. A CCMD may identify a capability gap/shortfall. These gaps or shortfalls are identified through their Integrated Priority List (IPL), a JUON or JEON. These requirements may be satisfied through two options: the normal acquisition process or the Quick Reaction Capability (QRC) process, as described in AFI 63-114, *Quick Reaction Capability Process*, and **Chapter 7**. Normal acquisition of CCMD's need requires a Service Component sponsor who is responsible for conducting appropriate supporting analysis and producing the necessary operational capability requirements documents.

1.3.4.5. Science & Technology (S&T) Activities. Science and technological advancements and breakthroughs play a crucial role in providing warfighters with superior operational systems. Examples of programs and processes to demonstrate, mature, and transition technologies include: Advanced Technology Demonstrations (ATD), Joint Capability Technology Demonstrations (JCTD), Flagship Capability Concepts (FCC), experiments, operational exercises, war games, DoD and Air Force research efforts, and commercial sources identified within the Defense Science and Technology Program. Evaluation of the results of such activities may lead to a sponsor developing an appropriate operational capability requirements document to facilitate transition of mature and affordable technologies. For additional information on S&T activities refer to AFI 61-101, *Management of Science and Technology.*

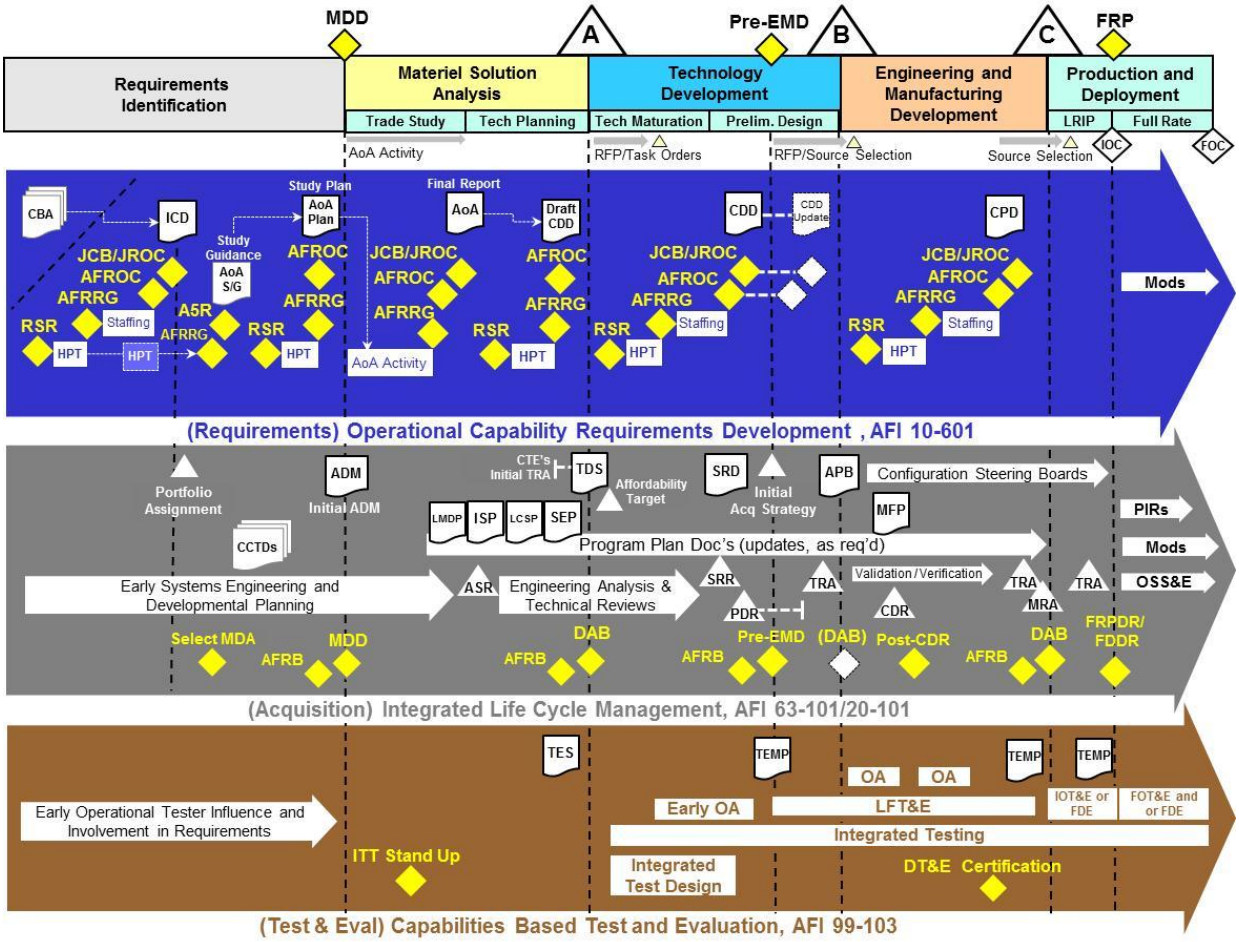
1.3.4.5.1. **(Added-AFSPC)** HQ AFSPC/A5X is the OPR for all S&T processes within the purview of HQ AFSPC as the Lead Command. Refer to AFI 61-101_AFSPCSUP_I, *Management of Science and Technology* for additional information.

1.3.4.6. Lessons Learned. A key method to achieve transformation of the Joint force is by producing compelling recommendations based on direct observations and sound analysis of current Joint operations, exercises and experiments. These recommendations (lessons) are derived from the full range of Joint activities and operations collected at the strategic, operational, and tactical level. Lessons assist senior leaders in making changes to DOTmLPF-P capabilities and guide associated programming, budgeting, and resourcing activities. To improve Joint capabilities and readiness, commanders may submit analytical observations directly to the Joint Lessons Learned Program (JLLP) through the Joint Lessons Learned Information System database, as described in CJCSI

3150.25, *Joint Lessons Learned Program*, and/or to the Air Force Lessons Learned Program (AFL2P), as described in AFI 90-1601, *Air Force Lessons Learned Program*.

1.4. Implementation. Air Force requirements are driven by desired effects and needed capabilities. All stakeholders in the acquisition framework must know why the Air Force needs a particular capability, how and where it will be used, who will use it, when it is needed, and how it will be supported and maintained. For a materiel solution, fielding an operational system starts with sound strategies for concept refinement, requirements development, acquisition and sustainment life cycle management, and test and evaluation (T&E). To be viable, these strategies must be developed in concert and require early and ongoing collaboration among operators, developers, programmers, systems engineers, acquirers, testers, sustainers, and intelligence analysts. No one strategy can stand alone and still be viable, since all are interdependent and require the integration of the others to be effective. Reference DoDI 5000.02, *Operation of the Defense Acquisition System* and AFI 63-101/20-101, *Integrated Life Cycle Management* for additional information.

Table 1.1. Integration of AF Requirements, Acquisition and Test Processes



NOTE: See Attachment 1 for a list of acronyms.

1.4.1. Expanding upon the collaborative effort, there are three mutually supporting AF processes that facilitate the development and sustainment of operational systems: operational capability requirements development as described in this instruction; acquisition and sustainment as described in AFI 63-101/20-101 and integrated operational testing as described in AFI 99-103, *Capabilities-Based Test and Evaluation*. These processes, along with the PPBE process outlined in AFI 65-601, Volume 3 *The Air Force Budget Corporate Process*, are interdependent and require collaboration to rapidly deliver new operational systems to the warfighter. The communities must use the guidance in all of these instructions to integrate their efforts and create synergy.

1.4.2. Integrated Life Cycle Management. The primary goal of the acquisition and sustainment framework is to efficiently deliver affordable, effective (e.g., meets the warfighter's needs) and sustainable operational systems. To achieve this goal, all stakeholders must collaborate throughout the requirements development process, and the planning and execution activities that lead to developing, fielding, and sustaining new operational systems. To maximize the potential for commercial and Non-Developmental Items (NDI) solutions, operational requirements should be stated in terms of performance or functionality and should be flexible to the greatest extent possible. After capability requirements and performance attributes are defined and approved, they are used to guide development, test and evaluation, production, procurement, deployment, sustainment, and ultimately disposal. Working with the operator, the acquirer builds an acquisition strategy that balances life cycle cost, schedule, and performance (operations and sustainment) in response to approved operational capability requirements documents. Regular recurring reviews throughout the requirements and acquisition processes ensure the desired capability meets the specified requirements, is delivered in a timely process, and is affordable. The acquisition strategy and the requirements strategy must align and be integrated through early collaborative development planning. Refer to AFI 63-101/20-101, for additional details.

1.4.2.1. Development Planning (DP) and Early Systems Engineering (SE). Through the application of early systems engineering, DP activities decompose capability needs and characterize tradespace, formulate and evaluate viable concepts (to include Human Systems Integration (HSI) considerations), identify technology shortfalls, and assists the requirements community in refining requirements. The results of DP efforts are documented in Concept Characterization and Technical Description (CCTD) documents. The outcome of these activities are fiscally and technologically informed requirements, a range of feasible concepts, and vectors for S&T investment to reduce technology risks that support requirements and acquisition decisions and feed AoAs. DP provides the analytic basis for cost and capability trades to inform requirements development and oversight activities supporting acquisition milestones, decision points, and phases (refer to Table 1.1).

1.4.2.1.1. **(Added-AFSPC)** HQ AFSPC/A5X is the OPR for all DP processes within the purview of HQ AFSPC as the Lead Command.

1.4.2.2. Intelligence Support Considerations. Most warfighting weapon systems require intelligence inputs to include threat and mission data. Intelligence specialists provide the necessary interface to the national Intelligence Community (IC) with which to access intelligence data and to enter into formal IC production requirements and planning processes. Not all requirements for intelligence data are supportable, in which case

intelligence must be considered from a cost / capability perspective. Early collaboration between Requirements, Acquisition, and Intelligence communities is critical to ensuring decisions regarding desired materiel solutions fully account for capability impacts presented by intelligence dependencies.

1.4.2.3. Materiel Solution Cost-Effective Prioritization. In accordance with DoD Acquisition policy, once a determination is made that a capability gap requires a materiel solution, seek the most cost-effective solution over the system's life cycle. The order of preference shall be: 1) procurement or modification of commercially available (domestic or foreign sources) or dual-use item, 2) additional production or modification of previously-developed US/allied item, 3) cooperative development with allies, 4) new joint US development program, and 5) new DoD component-unique development program.

1.4.2.4. Evolutionary Acquisition. In this process, a needed operational capability is met over time by developing several increments, each dependent on available mature technology. Each increment of a system must provide a useful capability solution that is safe, operationally effective, and suitable for use in the intended environment. A CDD may cover single or multiple increments, but it must clearly articulate which KPPs/KSAs apply to each increment. A CPD describes a single increment of a system.

1.4.3. Integrated Test and Evaluation (T&E). The overarching functions of T&E are to mature system designs, manage risks, identify and help resolve deficiencies as early as possible, and ensure systems are operationally mission capable (i.e., effective and suitable). Integrated testing is the collaborative planning and execution of test phases and events to provide shared data in support of independent analysis, evaluation, and reporting by all stakeholders, particularly the developmental (both contractor and government) and operational test and evaluation communities. Integrated testing structures T&E to reduce the time it takes to field effective and suitable systems by providing qualitative and quantitative information to decision makers throughout the program's life cycle. T&E stakeholders are integrated early within the Requirements and Acquisition development processes. Early collaboration between the Requirements, Acquisition, and Test communities ensures the materiel solution delivered to the warfighter meets the desired capability requirements and operates as intended. Refer to AFI 99-103 for additional details.

1.4.4. Planning, Programming, Budgeting and Execution (PPBE). The PPBE process contains four distinct, but inter-related phases. The Planning Phase, identifies capability requirements through planning and programming guidance. The Programming Phase, creates the AF portion of the Department of Defense's (DoD) Future Years Defense Program (FYDP). The Budgeting Phase, formulates and controls resource allocation and use. The Execution Phase, evaluates spending to determine the extent desired capabilities are achieved. Together these phases make up the PPBE process. AF/A8 provides financial guidance throughout the requirements process and advises the requirements community to aid and assist requirements decision-makers in making sound, fiscally informed decisions. Funding should not be programmed without clear linkages to documented operational capability gaps. Program funding will be aligned with the validated requirement for each acquisition phase. Early and continued collaboration between Requirements, Acquisition and PPBE communities ensures AF resources are optimally employed. Refer to AFI 65-601, for additional details.

1.5. Policy. The CSAF has directed AF/A5R to be the single focal point for all operational requirements issues and the AFROC is the AF corporate board for validation of operational capability requirements. There are subsets of organizations that assist AF/A5R in executing AF requirements, however; AF/A5R may request the AFROC review of any of these programs, as required. Unless otherwise required to obtain joint validation, in accordance with CJCSI 3170.01, the following authorities apply.

1.5.1. Requirements that are primarily or wholly medical or medical support in nature are validated under the Surgeon General's Requirements for Operational Capabilities Council. OPR is AF/SG5R.

1.5.2. Requirements that are primarily or wholly related to security forces functional issues are validated under the AF Security Force Center process. OPR is AF/A7SX.

1.5.3. United States Special Operations Command (USSOCOM) has validation authority for requirements (JCB Interest and below) and urgent needs unique to Special Operations. OPR is AF/A3O.

1.5.4. The Defense Business Council has validation authority for Defense Business Systems (DBS). OPR is SAF/US(M).

1.5.5. Operational Information Systems (IS) solutions where associated hardware is Commercial off the Shelf/Government off the Shelf (COTS/GOTS) and software development costs are less than $15M are not required to use the JCIDS process. MAJCOMs have approval authority for IS solutions with software development costs less than $15M.

1.5.5.1. **(Added-AFSPC)** HQ AFSPC/A5 is the approval authority for IS solution requirements where the MAJCOM is the approval authority.

1.5.5.2. **(Added-AFSPC)** Requirements Team Leads (RL) will use the Joint Capabilities Integration and Development System (JCIDS) Manual IS-ICD format for IS solutions where the MAJCOM is the approval authority to facilitate HQ AFSPC/A5 review and approval.

1.5.5.3. **(Added-AFSPC)** Staffing for such documents will be conducted by the HQ AFSPC RL, and include all pertinent stakeholders, to include the anticipated program office.

1.5.6. The Nuclear Weapons Council (NWC) has oversight of Joint DoD/Department of Energy (DOE) nuclear weapons life cycle activities per DODI 5030.55, *DoD Procedures for Joint DoD-DOE Nuclear Weapons Life Cycle Activities*. These joint programs support nuclear deterrence capability requirements that may be outside of the JCIDS process. During Joint DoD/DOE program executions, the DoD/AF will comply with JCIDS requirements, as applicable, when developing DoD-specific components or subcomponents to a nuclear weapon. OPR is AF/A10.

1.5.7. Requirements that are primarily funded with National Intelligence Program funding will be developed, reviewed and validated in accordance with the Intelligence Community (IC) Capability Requirements process. OPR is AF/A2.

1.5.8. Requirements that are primarily funded with Military Intelligence Program funding will be developed, reviewed and validated under the JCIDS process. OPR is AF/A2.

1.5.9. Requirements that are primarily related to Explosive Ordnance Disposal (EOD) functional issues are validated under the process outlined in DODD 5160.62, *Single Manager Responsibility for Military Explosive Ordnance Disposal Technology and Training (EODT&T).* OPR is AF/A7C.

1.5.10. Requirements that are primarily related to civil engineer functional issues are validated under the Air Force Civil Engineer Center (AFCEC) process. OPR is AF/A7CX.

1.6. Waiver Authority. AF/A5R is the waiver authority for the provisions in this instruction. Waiver requests shall contain compelling justification and must be submitted formally through AF/A5R-P.

1.7. AF/A5R-P Website. Additional requirements guidance and information, to supplement this AFI is located on the AF/A5R-P NIPRNET website which can be located on the AF Portal by navigating to "Organizations" and then to "AF/A5R-P-Requirements".

1.8. (Added-AFSPC) HQ AFSPC/A5X Website. Additional AFSPC-specific guidance and information is located on the HQ AFSPC/A5X NIPRNet website which can be located on the AF Portal using the portal's Search function for "AFSPC/A5X – Strategic Requirements Division."

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Purpose. This chapter defines the authority, roles, and responsibilities for organizations involved with defining, developing, documenting, validating, approving, and managing AF JCIDS requirements.

2.2. Authority. The CSAF is responsible for AF JCIDS requirements development; however, authority is normally delegated to the Vice Chief of Staff (VCSAF). The oversight for the AF JCIDS requirements development process and procedures has been further delegated through the Deputy Chief of Staff for Operations, Plans and Requirements (AF/A3/5) to the Director of Operational Capability Requirements (AF/A5R).

2.3. Roles and Responsibilities. The roles and responsibilities for organizations affecting the AF operational capability requirements development process are defined in subsequent paragraphs. This list is not exhaustive. Other organizations not specified in this document may provide expertise in certain situations to assist in the production of AF JCIDS requirements documents.

2.3.1. **Deputy Chief of Staff for Operations, Plans and Requirements (AF/A3/5):**

2.3.1.1. Responsible for AF JCIDS planning and requirements development processes and procedures. Delegates oversight and execution authority to AF/A5R.

2.3.1.2. Ensures AF doctrine influences AF related JCIDS requirements, policies, plans, programs, and strategies.

2.3.2. **Director, Operational Capability Requirements (AF/A5R):**

2.3.2.1. Responsible, by delegation, for AF sponsored JCIDS requirements policies, processes and activities.

2.3.2.2. Provides support and preparation to the VCSAF and other AF senior leaders for Joint Requirements Oversight Council (JROC) meetings.

2.3.2.3. Provides the AF principal for the Functional Capabilities Boards (FCB) and the Joint Capabilities Board (JCB).

2.3.2.4. AF/A5R(J) shall serve as the primary AF representative to the Joint Capabilities Board (JCB) and is the primary plus-one attendee to the JROC (VCSAF is the AF JROC principal) for all JCIDS topics, unless access constraints exist as determined by SAF/AAZ. In those cases where A5R(J), A5R, and DA5R cannot obtain the necessary access authority SAF/AAZ will normally pick-up these A5R(J) responsibilities.

2.3.2.5. Develops and coordinates the AF position and provides the necessary support for AF principals before, during, and after FCB Working Groups (WGs), FCBs, JCBs, and JROCs.

2.3.2.6. Tracks all AF associated Joint Requirements Oversight Council Memorandum (JROCM) action items and assigns responsibility to execute AF actions.

2.3.2.7. Coordinates AF position for all JROCMs, regardless of Service or ACAT level, and prepares and staffs JROCM packages to the VCSAF for signature.

2.3.2.8. Coordinates with other Headquarters Air Force (HAF) directorates, Joint Staff and Office of the Secretary of Defense (OSD) and Combatant Commands to resolve requirements issues.

2.3.2.9. Ensures other Services' requirements receive applicable AF functional review.

2.3.2.10. Chairs the AFROC and the Air Force Requirements Review Group (AFRRG). The AFRRG chairman responsibilities are delegated to AF/DA5R.

2.3.2.11. Coordinates and approves Initial Requirements Strategy Reviews (RSR).

2.3.2.12. Assigns an AF/A5R directorate/division to execute the requisite responsibilities for all requirements topics. Exercises VCSAF authority to task responsible organizations within the HAF, MAJCOMs, and Agencies to review and staff JCIDS requirements documents and Comment Resolution Matrices (CRM).

2.3.2.13. Facilitates the High Performance Team (HPT) process for ACAT I programs, approves HPT membership, supports MAJCOM-led HPTs for ACAT II and III programs and provides lead and participant HPT orientation.

2.3.2.14. Reviews capabilities analysis used to support a JCIDS document to ensure studies are operationally relevant.

2.3.2.15. Consolidates CFMP linkages into the JCIDS process.

2.3.2.16. Validates draft AoA Study Guidance before submission to Office of the Secretary of Defense (OSD) Cost Assessment & Program Evaluation (CAPE). Approves additional guidance to supplement CAPE guidance, if needed. Approves AoA Study Guidance for AF delegated studies.

2.3.2.17. Reviews and approves AF Form 1067s as required. See **Chapter 6** for additional information on the AF Form1067 process.

2.3.3. **AF/A5R-P:**

2.3.3.1. Administers the AFRRG and the AFROC.

2.3.3.1.1. Prepares AFROC After Action Reports (AAR) for VCSAF approval and AFROC Minutes for AF/A5R approval.

2.3.3.1.2. Prepares Air Force Requirements Oversight Council Memorandums (AFROCM) for AF/A5R signature.

2.3.3.2. Administers Follow-on RSRs.

2.3.3.3. Serves as the AF Gatekeeper (AFGK) and conducts all AFGK reviews. See **Chapter 3** for additional information.

2.3.3.4. Responsible for the standardization and quality of AF JCIDS requirements processes and products.

2.3.3.5. Tracks status of all associated AFROCM action items.

2.3.3.6. Integrates AF/A5R equities for all Integrated Priority Lists (IPL) actions and ensures all Capability Gap Assessments (CGA) JROCM actions assigned to the AF are completed.

2.3.3.7. Reviews and facilitates staffing and coordination for all JCIDS requirements documents.

2.3.3.8. Submits JROC/JCB Interest Documents for FCB Draft. Submits Joint Integration Documents to the JS/Gatekeeper for JS certifications as required.

2.3.3.9. Tracks status of UON, JUON, JEON and CSAF directed QRC requests.

2.3.3.10. Administers Requirements Manager Certification Training (RMCT) program for the USAF.

2.3.3.11. Reviews and coordinates AF Form 1067s for approval as required.

2.3.4. **AF/A5R Functional Division:**

2.3.4.1. Reviews, updates and provides an assessment of, as necessary, all documents and associated materials within their portfolios submitted from the Sponsor for AF/A5R, AFRRG, and AFROC review/validation.

2.3.4.2. Provides Subject Matter Expertise for any AFRRG or AFROC topic within their portfolio, or as directed by A5R. When SME does not reside within an A5R division, the designated division will identify the appropriate HAF or MAJCOM SME to support the AFRRG or AFROC.

2.3.4.3. Provides AFROC pre-briefs sheets, briefings and materials to AF/A5R-P.

2.3.4.4. Coordinates with document sponsor and AF/A5R-P on requirements strategy development.

2.3.4.5. Ensures all HPT, AFRRG and AFROC action items are resolved and ensures comments for AF requirements documents have been properly adjudicated.

2.3.4.6. Prepares staff packages for CSAF/VCSAF's approval to release AoA Study Plan to Director, CAPE as appropriate.

2.3.4.7. Provides O-6 level, RMCT trained, person for all AFROC & AFRRG meetings as appropriate.

2.3.4.8. Provides HPT support members, as appropriate, for operational capability requirements document development.

2.3.4.9. Provides an Information & Resource Support System (IRSS) Point of Contact (POC) to facilitate review of JCIDS requirements documents.

2.3.5. **AF Functional Capability Board (FCB) Leads:**

2.3.5.1. Provides AF O-6 level representation (referred to as AF FCB Leads) and action officer representation for FCB Working Group (FCB WG) meetings. Per the JROC Charter, AF FCB Leads are empowered to speak for the AF on all matters brought before the FCB or FCB WG forums.

2.3.5.2. Tracks status of all associated JROCM action items (including IPL CGA actions) assigned to their FCB portfolio when AF (or any AF organization) is designated as the OPR.

2.3.5.3. Ensures AF sponsor coordination with AF/A5R Directorates/Divisions on items that are required (by this AFI) to obtain AFROC review/validation or AF approval before proceeding to an FCB, JCB or JROC.

2.3.5.4. As designated, by the JS GK, acts as the OPR for coordination and preparation of the AF position for all non-AF JCIDS documents. Provide O-6 (AF FCB Lead) endorsement of AF position, or obtain General Officer (GO)-level coordination (normally A5R(J)) when position is AF non-concur. See **Chapter 5** for more detail.

2.3.5.5. Facilitates preparation of AF principals on all topics for JCB and JROC forums.

2.3.6. **Directorate of Operational Planning, Policy, and Strategy (AF/A5X):**

2.3.6.1. Collaborates with AF/A8X, MAJCOMs, other Services, and the defense S&T community to support future AF capabilities development through concept development and experimentation.

2.3.6.2. Ensures AF Counter-Chemical, Biological, Radiological, and Nuclear (C-CBRN) and CBRN survivability concerns are appropriately addressed in all AF and Joint operational capability documents.

2.3.6.3. Ensures Air Force and Joint operational capability documents are compliant with international arms control treaties.

2.3.6.4. Provides HPT support members, as appropriate, for operational capability requirements document development.

2.3.6.5. Provides O-6 level, RMCT-trained advisor for all AFRRG events.

2.3.6.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.7. **Assistant Secretary of the Air Force, Acquisition (SAF/AQ):**

2.3.7.1. Certifies (with the implementing command), those requirements as described in ACAT I and non-delegated ACAT II CDDs: 1) can be translated for evaluation in a source selection in a clear and unambiguous way; 2) are prioritized (if appropriate); 3) are organized into feasible increments of capability; and 4) are technically feasible within programmatic limits. Certification occurs concurrently with presentation to the AFROC.

2.3.7.2. Ensures life cycle cost assessments, cycle times, and requirements tradeoffs are addressed in acquisition decision forums, to include Configuration Steering Boards and AF Review Boards.

2.3.7.3. Ensures tradeoff analyses of program life cycle cost / capability analysis are produced to capture tradespace and are provided before all requirements oversight reviews (e.g. AFRRG, AFROC) for affordability decisions.

2.3.7.4. Notifies AF/A5R in advance of programs exceeding tripwire criteria as outlined in paragraph 4.8.9. of this AFI to trigger return to the AFROC.

2.3.7.5. Executes the QRC Process to satisfy urgent and emergent operator needs, as described in AFI 63-114.

2.3.7.6. Oversees the AF modification process as described in AFI 63-131, *Modification Management* and ensures that it is consistent with this instruction.

2.3.7.6.1. **(Added-AFSPC)** Refer to AFI 63-131_AFSPCSUP, *Modification Management* for specific HQ AFSPC modification management processes.

2.3.7.7. Ensures the acquisition community works collaboratively with the requirements community beginning with the CBA and continuing through development and review of AoAs, ICDs, Draft CDDs, CDDs, CPDs, and Joint DCRs.

2.3.7.8. Participates in operational requirements strategy development through the AFRRG. Ensures acquisition issues are addressed during the development of the operational capability.

2.3.7.9. Ensures all operational capability requirements documents are reviewed for technical sufficiency and technical feasibility with respect to the systems engineering elements. See AFI 63-101/20-101 for additional information on systems engineering.

2.3.7.10. Provides HSI endorsement for all programs that are reviewed by the AFROC.

2.3.7.11. Provides a HSI advisor to all AFROC and AFRRG events.

2.3.7.12. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.7.13. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.7.14. Provides core/support HPT members, as appropriate.

2.3.7.15. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.8. **Administrative Assistant Secretary of the Air Force, Directorate for Security, Counterintelligence and Special Program Oversight (SAF/AAZ):**

2.3.8.1. Serves as the AF Special Access Program Central Office (SAPCO) and serves as the single entry point for JROC SAP level program coordination.

2.3.8.2. Receives notification of SAP topics involved in the JROC process from the J8 SAPCO. Determines appropriate HAF office/personnel and ensures personnel designated to represent the AF have the appropriate clearances.

2.3.8.3. For topics originating from another service, coordinates with AF Principal and other service's POC to schedule pre-briefs.

2.3.8.4. Provides GO level RMCT trained principal to JCB and plus-one to JROC when classification constraints prevent AF/A5R(J) participation.

2.3.9. **Office of the Secretary of the Air Force, Information Dominance and Chief Information Officer (SAF/CIO A6):**

2.3.9.1. Participates in operational requirements strategy development. Ensures interoperability and AF and Joint information strategy issues are addressed to provide for long-term viability of the operational system and compliance with Federal and DoD mandates.

2.3.9.2. Ensures all elements of the Net Ready Key Performance Parameters (NR KPP) are properly addressed IAW most current issue of CJCSI 6212.01, *Net Ready Key Performance Parameter*, in operational capability requirements documents and coordinates with JS/J6 for NR KPP certification.

2.3.9.3. Ensures effective and efficient IT management as required by Congressional statutory and DoD regulatory requirements (e.g. Clinger Cohen Act and DoD 5000 series) throughout the requirements process.

2.3.9.4. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.9.5. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.9.6. Provides core/support HPT members, as appropriate, for operational capability requirements document development.

2.3.9.7. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.10. **Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance (AF/A2):**

2.3.10.1. Provides AF policy and guidance relative to intelligence in acquisition and ensures Joint portfolio management is aligned with the current JCAs in accordance with DoDD 7045.20, *Capability Portfolio Management*, AFI 14-111, *Intelligence Support to the Acquisition Lifecycle*, and as per AFPD 16-7, *Special Access Programs*.

2.3.10.2. Participates in operational requirements strategy development. Ensures intelligence issues are addressed during the development of the operational capability.

2.3.10.3. Ensures all operational capability requirements documents are reviewed for sufficiency in intelligence mission data, threat and any other relevant intelligence content pertinent to mandatory KPPs. As per DoDD 7045.20 ensures consistency with Joint portfolio management as aligned with the current JCAs.

2.3.10.4. Assists organizational intelligence elements in the identification of Intelligence Mission Data (IMD) and in the development of Life Cycle Mission Data Plans (LMDPs) as a component of Requirements and Acquisition community documentation.

2.3.10.5. Supports Intelligence Requirements Certification process IAW CJCSI 3170.01, CJCSI 3312.01 and CJCSI 6212.01. Reviews and coordinates on requirements documents for Joint Military Intelligence Requirements Certification and assists sponsor in obtaining JS/J2 Intelligence Certification.

2.3.10.6. Provides threat assessment products for AoA study teams and program offices at required ICD, CDD and T&E milestones.

2.3.10.7. Coordinates Intelligence inputs to life cycle cost assessments for CDDs and CPDs.

2.3.10.8. Liaison with the Intelligence community to provide IMD availability per DoDD 5250.01 policy and process.

2.3.10.9. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.10.10. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.10.11. Provides core/support HPT members as appropriate for operational capability requirements document development.

2.3.10.12. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.11. **Deputy Chief of Staff, Logistics, Installations & Mission Support (AF/A4/7):**

2.3.11.1. Participates in operational requirements strategy development. Ensures logistics and environmental issues are addressed to provide for long-term viability of the operational system, system availability requirements, a reduced logistics footprint, optimizing AF enterprise sustainment capabilities, and AF control of the System product support.

2.3.11.2. Ensures operational capability requirement documents contain executable supportability and life cycle sustainment strategies for effective operational logistics support of materiel, systems, installations and mission-support requirements.

2.3.11.3. Ensures AF CBRN defense concerns are appropriate and accurate in all AF and Joint operational capability requirements documents. ***NOTE:*** AF/A4/7 provides agile combat support for most, but not all, systems. Examples of systems falling outside AF/A4/7's logistics support structure include cyberspace weapon systems, AOCs, and most IT/knowledge operations. For systems/products outside AF/A4/7's portfolio, material, systems, installations and material support requirements planning will be provided by the appropriate HAF functional area with AF/A4/7 advice as needed.

2.3.11.4. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.11.5. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.11.6. Provides core/support HPT members as appropriate for operational capability requirements document development.

2.3.11.7. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.12. **Deputy Chief of Staff, Strategic Plans & Programs (AF/A8):**

2.3.12.1. In collaboration with SAF/AQ, advises the AFRRG and the AFROC on program affordability.

2.3.12.2. Ensures program funding will be aligned with the validated requirement for each acquisition phase.

2.3.12.3. Supports AF/A5R in consolidating CFMP linkages into the JCIDS process.

2.3.12.4. Collaborates with AF/A5X, MAJCOMs, other Services, and the defense S&T community to support future AF capabilities development through concept development and experimentation.

2.3.12.5. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.12.6. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.12.7. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.13. **Studies & Analyses, Assessments and Lessons Learned (AF/A9):**

2.3.13.1. As OPR for the AF Risk Assessment Framework, assists Lead Commands in developing metrics consistent with the Chairman's Common Risk Framework to facilitate standardized methods of analysis.

2.3.13.2. Provides analytical expertise, technical advice, guidance and recommendations on military risk (operational, force management, institutional, future challenges) assessments.

2.3.13.3. For select issues identified by the AFROC during the AoA Study Plan approval, performs independent analysis of AoAs to enhance confidence in results. Select AoAs will be identified by the AFROC during the AoA Study Plan approval.

2.3.13.4. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.13.5. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.13.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.14. **Assistant Chief of Staff for Strategic Deterrence and Nuclear Integration (AF/A10):**

2.3.14.1. Provides HAF liaison to the Nuclear Weapons Council and AF Nuclear Enterprise for requirements concerning AF nuclear weapons/weapon systems programs.

2.3.14.2. Ensures all nuclear capabilities requirements documents are reviewed for accurate assessment of supportability and integration with the AF Nuclear Enterprise.

2.3.14.3. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.14.4. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.14.5. Provides core/support HPT members, as appropriate, for nuclear operational capability requirements document development.

2.3.14.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.15. **Directorate of Test & Evaluation (AF/TE):**

2.3.15.1. Ensures AF requirements are clearly stated, measurable and testable.

2.3.15.2. Supports development of operational capability requirements documents and ensures appropriate (direct and/or designated) participation in HPTs.

2.3.15.3. Supports the operations, acquisition, and sustainment communities' efforts to acquire and maintain operationally effective, suitable, and survivable systems.

2.3.15.4. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.15.5. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.15.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.16. **Air Force Operational Test and Evaluation Center (AFOTEC):**

2.3.16.1. Reviews all operational capability requirements documents and related concepts for OT&E issues.

2.3.16.2. For programs where AFOTEC is the lead operational test agency, AFOTEC/CC certifies that the requirements in the CDD and CPD are clearly stated, testable and measurable in conjunction with the AFROC. Certification occurs concurrently with presentation to the AFROC. NOTE: For Air Force programs where a Lead Command is the lead operational test organization (OTO), the MAJCOM OTO/CC will submit the certification concurrent with presentation to the AFROC.

2.3.16.3. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.16.4. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.16.5. Provides core/support HPT members as appropriate for operational capability requirements document development.

2.3.16.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.17. **Air Education and Training Command (AETC):**

2.3.17.1. Coordinates on all AF operational capability requirements documents and other Service requirements documents for AF training implications.

2.3.17.2. Provides guidance, assists in the development of, and reviews AF training plans and systems before CDD approval.

2.3.17.3. Provides input and guidance on the Training KPP.

2.3.17.4. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.17.5. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.17.6. Provides core/support HPT members as appropriate for operational capability requirements document development.

2.3.17.7. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.18. **Lead Command/CFLI:**

2.3.18.1. Sponsors operational capability requirements documents.

2.3.18.2. Develops requirements strategy and presents to AFRRG for approval.

2.3.18.3. Conducts analyses to support AF and Joint requirements to include CBAs and AoAs with assistance from AFMC/OAS.

2.3.18.4. In conjunction with the Implementing Command, produces and presents cost capability analysis, provides results at all requirements and acquisition forums, and includes in AoA Final Reports, CDDs, and CPDs. Analysis will capture all interrelated systems needed to accomplish the mission.

2.3.18.5. Uses CFMP risk assessments when developing requirements risk assessments for all programs within their portfolio for validation by the AFROC in support of the JCIDS and PPBE processes. Additionally, provides risk assessment to AF/A5R

facilitator for all AF-sponsored JCIDS documents within their service core function and AFROC decision topics as required.

2.3.18.6. Through the CFMP, provides a strategic vision for the Service Core Function (SCF) and force structure options to inform the requirements process, the PPBE process, and the acquisition process, to ensure consistency with strategic direction and capability requirements.

2.3.18.7. Builds and documents the enterprise architecture, Concept of Operations (CONOPS) and relevant concepts, defining the mission context required for the capability's requirements analysis, acquisition, operations, test, training, and sustainment.

2.3.18.8. For intelligence-sensitive programs/initiatives, coordinates with the supporting intelligence representatives to detail the future threat environment and assess the extent of intelligence supportability, mission data, and infrastructure support that is required for the capability to be fully fielded and sustained (IAW AFI 14-111 and AFI 14-205, *Geospatial Information & Services* (GI&S)).

2.3.18.9. Coordinates with the Implementing Command and program office beginning with the RSR and throughout the requirements process to ensure the development of feasible capability requirements.

2.3.18.10. Ensures systems engineering considerations, as identified by the Implementing Command, (including, but not limited to operational safety, suitability, and effectiveness; environmental, safety, and occupational health; HSI; maintenance/sustaining engineering; product and system integrity; and software engineering) are addressed in all ICDs, CDDs, CPDs, and DCRs as appropriate.

2.3.18.11. Ensures life cycle sustainment requirements are addressed in all operational capability requirements documents.

2.3.18.12. Provides draft study guidance and study plan for AF AoAs to AF/A5R.

2.3.18.13. Certifies that requirements contained in the System Requirements Document (SRD) are accurately translated from the parent JCIDS document and that there is no unintended growth in requirements that could drive cost and schedule. The AFRRG will review SRDs for select programs.

2.3.18.14. Assists implementing command by coordinating on system requirements documents, acquisition strategies, and requests for proposals before relevant contracting actions.

2.3.18.15. Notifies AFROC before submittal of an AF response to the JROC regarding Critical Change Reports (CCR), 10% Tripwire briefs and Nunn-McCurdy Breach presentations. See the JCIDS Manual for additional guidance.

2.3.18.16. Maintains and updates, as necessary, a list of ongoing and forecasted CBAs and AoAs with traceability to the CFMP; presents status briefing for CBAs and AoAs to the AFROC annually (per FY) for review. Submits study initiation memo in accordance with JCIDS Manual.

2.3.18.17. Provides requirements representation at all intermediate acquisition forums and provides feedback to AF/A5R to inform HQ level activities at AF Review Boards and Configuration Steering Boards.

2.3.18.18. Develops required briefings for AFRRGs, AFROCs, FCBs, JCBs, and JROCs.

2.3.18.19. Uploads requirements briefings, documents, and required documentation to IRSS.

2.3.18.20. Maintains a 12-month forecast of upcoming requirements events for all programs in their portfolio. Forecast will include estimated dates for upcoming HPTs, AFRRGs, and AFROC topics. Quarterly updates are submitted to AF/A5R-P and AF/A5R Functional Division/Facilitators for planning purposes.

2.3.18.21. Develops modification requests IAW AFI 63-131 for assigned weapon systems.

2.3.18.22. MAJCOM Director of Requirements approves AF Form 1067 modification requests less than $50M. Refer to **Chapter 6** for additional details.

2.3.18.23. Sponsor coordinates with AF/A5R Functional Division and/or AF FCB Lead before interacting with the Joint Staff and/or OSD on requirements matters.

2.3.18.24. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.18.25. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.18.26. Participates in HPTs (as lead, and/or core and support member as necessary) for operational capability document development, and provides consultation to AF/A5R on HPT membership.

2.3.18.27. Provides an IRSS POC to facilitate command-wide review of JCIDS requirements documents. ***NOTE:*** For Air Force programs where a Lead Command is the lead operational test organization (OTO), the MAJCOM OTO/CC will submit the certification concurrent with presentation to the AFROC. ***NOTE***: Direct Reporting Units (DRU), and Field Operating Agency (FOA) with no direct MAJCOM oversight can introduce documents into the JCIDS process and will meet all required certifications and follow all guidance specified for Lead Commands when acting in this capacity. FOAs with MAJCOM oversight will work with the Lead Command requirements office to initiate the JCIDS process. Reference AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems* for additional information on Lead Command designation.

2.3.18.28. **(Added-AFSPC)** All HQ AFSPC Directorates and the AF Network Integration Center (AFNIC):

2.3.18.28.1. **(Added-AFSPC)** Participate in HQ AFSPC Requirements Group and Board.

2.3.18.28.2. **(Added-AFSPC)** Retain overall authority for their respective areas of responsibility (e.g., requirements development for HQ AFSPC/A5; plans, programs and analyses for HQ AFSPC/A8/9, etc.). Each will support the RL as required by

providing representatives to the Integrated Concept Teams (ICT). RL and ICT responsibilities are explained in **paragraph 3.12** below.

2.3.18.29. **(Added-AFSPC)** Directorate of Requirements (HQ AFSPC/A5):

2.3.18.29.1. **(Added-AFSPC)** Responsible for the HQ AFSPC operational capability requirements process per Chapters 3 and 4 of this AFI for core command capabilities. Develops and sponsors all AFSPC operational capability requirements documents (ICD, IS-ICD, CDD, CPD, DCR) for presentation to the AFROC and, if required, the FCB/JCB/JROC. Collaborates with product centers in the development and coordination of system requirements documents (SRD).

2.3.18.29.2. **(Added-AFSPC)** Ensures standardized requirements processes across the command. Provides oversight for the development, acquisition and fielding of new capabilities. Assists ICT responsibility transfer to HQ AFSPC/A3 at Operational Acceptance and/or Initial Operational Capability (IOC).

2.3.18.29.3. **(Added-AFSPC)** Appoints, in writing, RLs to support specific capability needs when a materiel or non-materiel solution is determined to meet an identified capability gap/shortfall per Chapter 4 of this AFI. RLs will form and lead capability ICTs at the direction of the capability area Division Chief. When the system capability is accepted for operational use, the RL is relieved and ICT responsibility is turned over to HQ AFSPC/A3 for operations and sustainment (O&S). Reference **paragraph 2.3.18.32.1** for more detail on HQ AFSPC/A3 responsibilities. See **paragraph 3.12** below for more detail on RL and ICT responsibilities.

2.3.18.29.4. **(Added-AFSPC)** Establishes a training program to ensure all HQ AFSPC action officers understand their role in the Decision Support Systems as executed in the command. Tracks RL training status to certify RLs are properly equipped to represent the Command in requirements forums. Manages training quotas for course offerings external to AFSPC (e.g., Requirements 111).

2.3.18.29.5. **(Added-AFSPC)** Chairs the HQ AFSPC Requirements Group and Board.

2.3.18.29.6. **(Added-AFSPC)** Provides HQ AFSPC responses to taskings from Headquarters Air Force (HAF) and Joint Staff requesting review of operational capability requirements documents.

2.3.18.29.7. **(Added-AFSPC)** Coordinates on Analysis of Alternatives (AoA) Study Guidance/Plans and other AoA related documents. Conducts AoAs in coordination with the product center(s) as part of JCIDS document preparation using the Office of Aerospace Studies AoA Handbook and Director, Cost Analysis and Program Evaluation guidance. Ensures anticipated future energy costs, to include fully burdened cost of energy analysis for systems that may have contested energy supply chains, are included in the analysis of all alternatives in AoAs, as well as subsequent KPPs/KSAs (as required). Ensures resilience is considered in the cost/benefit portion of all AoAs for AFSPC programs. For cyber programs, includes analysis of potential materiel/non-materiel alternatives produced by 24 AF under Real-Time Operations and Innovation (RTO&I) guidance in AFSPCGM2013-10-01.

2.3.18.29.8. **(Added-AFSPC)** Serves as Chief Architect for AFSPC Enterprise Architectures. Approves all architecture products for use in operational requirements documents upon recommendation of the Architecture Synchronization Forum.

2.3.18.29.9. **(Added-AFSPC)** Co-chairs HQ Configuration Review Board (CRB) and Requirements Validation and Certification Board (VCB), along with A4/7, to review and validate proposed AF Form 1067, *Modification Requests*. See **paragraph 6.3.3**, this supplement for more detail.

2.3.18.30. **(Added-AFSPC)** Directorate of Manpower, Personnel and Services (HQ AFSPC/A1): Conducts manpower studies to validate manpower requirements to meet weapon system platform needs; develops manpower estimates in support of capability requirements development for new/upgraded systems. Manpower requirements are included in the appropriate JCIDS documents.

2.3.18.31. **(Added-AFSPC)** Directorate of Intelligence, Surveillance and Reconnaissance (ISR) (HQ AFSPC/A2):

2.3.18.31.1. **(Added-AFSPC)** Responsible for managing and overseeing ISR activities in support of the operational capability requirements process. Assists in developing, and reviewing strategic plans and other acquisition-related documents to ensure specific intelligence requirements and constraints are documented in accordance with AFI 14-111, *Intelligence Support to the Acquisition Life-Cycle*. Identifies intelligence-sensitive capabilities and provides and/or coordinates the expertise necessary to provide appropriate ISR support in accordance with AFI 14-111 and pertinent command supplements.

2.3.18.31.2. **(Added-AFSPC)** Using validated or approved intelligence, prepares threat assessments/summaries for JCIDS documents, concepts, AoAs, Strategic Plans, and other requirements related documents, studies and analyses prepared by HQ AFSPC. Prepares intelligence supportability portions of JCIDS documents and other requirements related documents, studies and analyses prepared by HQ AFSPC.

2.3.18.31.3. **(Added-AFSPC)** Coordinates with the Intelligence Community to produce Initial Threat Environment Assessments (ITEA), system-specific System Threat Assessment Reports (STAR)/System Threat Assessments (STA), as required by DoDI 5000.02, *Operation of the Defense Acquisition System*, DIAI 5000.002, *Intelligence Threat Support for Major Defense Acquisition Programs*, and Space or Information Operations Capstone Threat Assessments and updates.

2.3.18.31.4. **(Added-AFSPC)** In coordination with HQ AFSPC/A5, A3 and A8/9, advocates for AFSPC scenario requirements and provides supplemental data on foreign forces and concepts in scenario baselines used in analysis supporting AFSPC planning, programming and acquisition.

2.3.18.31.5. **(Added-AFSPC)** Assists the RL with the process for obtaining intelligence certification or requesting a waiver, as required by CJCSI 3170.01, *Joint Capabilities Integration and Development System* and CJCSI 3312.01, *Joint Military Intelligence Requirements Certification*. Reference AFI 14-111, *Intelligence Support to the Acquisition Life-Cycle* for additional information.

2.3.18.31.6. **(Added-AFSPC)** Coordinates with the Air Force Materiel Command (AFMC) Intelligence Squadron to forecast intelligence costs associated with proposed capabilities. Works with acquisition counterparts (PM, Technology Lead, etc.) to ensure intelligence infrastructure costs are included in life cycle cost estimates and program budgets.

2.3.18.32. **(Added-AFSPC)** Directorate of Air, Space & Cyberspace Operations (HQ AFSPC/A3):

2.3.18.32.1. **(Added-AFSPC)** Provides an Operations Lead (OL) to support the respective program for specific capabilities. Assumes oversight responsibilities and ICT leadership for capabilities that have transitioned from development to MAJCOM sustainment responsibility IAW AFSPCI 10-205, *Operational Transition Process*.

2.3.18.32.2. **(Added-AFSPC)** Sponsors operational testing, as needed, of AFSPC systems to ensure the Air Force acquires and maintains operationally effective and suitable systems which meet user requirements and to identify and help resolve deficiencies per AFI 99-103, *Capabilities-Based Test and Evaluation* and AFSPCI 99-103, *Capabilities-Based Test and Evaluation of Space and Cyberspace Systems*.

2.3.18.32.3. **(Added-AFSPC)** Develops enabling and operating concepts in support of requirements development activities IAW AFSPCI 10-102, *Concept Development*.

2.3.18.32.4. **(Added-AFSPC)** Ensures the capability-based requirements process is adequately supported by an appropriate level of wargaming, with engineering support from the program office(s) as required, IAW AFI 10-2802, *Air Force Experimentation*.

2.3.18.32.5. **(Added-AFSPC)** Implements the Operational Transition process for AFSPC systems IAW AFSPCI 10-205, *Operational Transition Process*.

2.3.18.33. **(Added-AFSPC)** Directorate of Logistics, Installations and Mission Support (HQ AFSPC/A4/7):

2.3.18.33.1. **(Added-AFSPC)** Chairs product center reviews to ensure sustainment considerations are incorporated into the development process.

2.3.18.33.2. **(Added-AFSPC)** Responsible for the HQ AFSPC modification management process, per AFSPC Supplement to AFI 63-131, *Modification Management*. Modification requirements are documented in an AF Form 1067. Reference AFI 63-131_AFSPCSUP, *Modification Management.*

2.3.18.33.3. **(Added-AFSPC)** Co-chairs HQ CRB and VCB, along with A5, to review and validate proposed AF Form 1067 modification requests. See paragraph 6.3.3, this supplement for more detail.

2.3.18.33.4. **(Added-AFSPC)** Provides a security risk analysis using the Systems Effectiveness Assessment process for missions that may warrant an AF Protection Level (PL). Facilitates completion and validation of the AF PL Designation package.

2.3.18.34. **(Added-AFSPC)** Directorate of Communications and Information (HQ AFSPC/A6)

2.3.18.34.1. **(Added-AFSPC)** In support of the Lead Command for Communications and Information (C&I), plans and manages programs within the C&I portfolio.

2.3.18.34.2. **(Added-AFSPC)** As the Designated Accrediting Authority (DAA), as delegated by AFSPC/CC:

2.3.18.34.2.1. **(Added-AFSPC)** Accredits Air Force space and cyberspace systems assigned by USSTRATCOM and Joint Staff, and is the approving authority for connections to the Air Force Network (AFNET), per AFPD 33-2, *Information Assurance (IA) Program*, AFI 33-200, *Information Assurance (IA) Management* and DoDD 8581.1E, *Information Assurance (IA) Policy for Space Systems Used by the Department of Defense*.

2.3.18.34.3. **(Added-AFSPC)** Responsible for validating AFSPC communications needs identified through the Cyberspace Infrastructure Planning System (CIPS). Reference AFI 33-150, *Management of Cyberspace Support Activities* for additional information.

2.3.18.34.4. **(Added-AFSPC)** As the AFSPC Spectrum Manager, ensures that operational requirements documents include requirements for and milestones designating Spectrum Certification IAW AFI 33-580, *Spectrum Management*.

2.3.18.34.5. **(Added-AFSPC)** Cyberspace Support Squadron (CYSS):

2.3.18.34.5.1. **(Added-AFSPC)** Provides RLs for cyberspace, and as lead for public key infrastructure (PKI), provides RLs for cryptographic modernization requirements development ICTs as needed. Serves as integral members of the HQ AFSPC Cyberspace Divisions to drive integration of assigned programs and develop AFNET architecture products as required in conjunction with AFNIC and the product center in development of JCIDS products. Supports HQ AFSPC in development of Cyberspace domain architectures.

2.3.18.34.5.2. **(Added-AFSPC)** HQ AFSPC/A5 Cyberspace Division Chiefs will coordinate with CYSS/CC to designate the appropriate RL for A5 appointment for CYSS-assigned cyber capability programs. The CYSS/CC will ensure the assigned CYSS personnel are properly certified in accordance with paragraphs 8.4 in the basic instruction and **paragraph 8.8** below.

2.3.18.34.5.3. **(Added-AFSPC)** Assesses integration and operational Information Technology Requests sent from HQ AFSPC from a DOTMLPF-P, architecture, technology, and bandwidth perspective and provides a recommendation to the appropriate HQ AFSPC Cyberspace Division Chief.

2.3.18.34.5.4. **(Added-AFSPC)** For programs assigned to CYSS, leads ICTs as RL to draft ICDs, CDDs and CPDs as needed on behalf of the appropriate HQ AFSPC/A5 Cyberspace Division. In addition, the RL will lead in adjudication of JCIDS comments and brief the AFROC as required to facilitate ICD, CDD, and CPD approval.

2.3.18.34.5.5. **(Added-AFSPC)** Reviews and provides comments to product centers for program Life Cycle Management Plans. Drafts AF Form 1067 for

cyberspace systems.

2.3.18.34.5.6. **(Added-AFSPC)** Works with 38th Cyberspace Readiness Squadron (38 CYRS) (the AF Defense Information Systems Network subject matter experts for Long Haul Communications) to ensure requirements documents and supporting documentation (e.g., the Information Support Plan) consider these critical links to ensure interoperability and sustainment of DoD systems.

2.3.18.34.5.7. **(Added-AFSPC)** Provides representatives to attend Capability Collaboration Team meetings IAW AFI 61-101, *Management of Science and Technology*.

2.3.18.35. **(Added-AFSPC)** Directorate of Strategic Plans, Programs and Analyses (HQ AFSPC/A8/9):

2.3.18.35.1. **(Added-AFSPC)** Leads the Command's strategic planning process (i.e., the Integrated Planning Process (IPP)); provides interface between the IPP and HQ AFSPC/A5 requirements development efforts. Formulates AFSPC Commander's Strategic Guidance as the basis for the IPP. Facilitates the IPP using the resources from across the MAJCOM staff. Develops the Space Superiority and Cyberspace Superiority Core Function Support Plans (CFSP) as the major outputs of the HQ AFSPC strategic planning process, identifying potential materiel solutions/future concepts for HQ AFSPC/A5 to pursue in requirements development. Coordinates with other AF Core Function Leads for capabilities within other portfolios that directly affect AFSPC programs and operations (e.g., Command and Control, Cyberspace ISR, etc.)

2.3.18.35.2. **(Added-AFSPC)** Leads the programming portion of the PPBE process; provides interface between requirements process and the programming portion of the PPBE process. Advocates program funding for materiel and non-materiel solutions to satisfy AFROC/JROC-validated requirements.

2.3.18.35.3. **(Added-AFSPC)** Conducts analyses, such as military utility analyses, to support the IPP, AoAs, architecture development family-of-systems definition, analysis for current operations and sustainment, and analysis supporting the entire life cycle of current and proposed space and cyberspace systems.

2.3.18.35.4. **(Added-AFSPC)** HQ AFSPC designated lead for HAF/A8X led Planning Force Option effort (i.e., Core Function Lead Integration Event) and the AF-level Revised Strategy, Planning & Programming process.

2.3.18.35.5. **(Added-AFSPC)** Provides OSD- approved Integrated Security Constructs and Joint Staff approved Multi-Service Force Deployments documents IAW DoDI 8260.01, *Support for Strategic Analysis*, for analytical efforts. Advises analytical leads on scenario products to meet analytical needs/objectives.

2.3.18.36. **(Added-AFSPC)** Directorate of Financial Management and Comptroller (HQ AFSPC/FM): Leads cost analysis activities in support of HQ AFSPC AoA studies to include the validation of cost data, methodologies, and risk. Provides cost analysis

technical guidance and advisory support throughout the requirements development process.

2.3.18.37. **(Added-AFSPC)** Space and Missile Systems Center (SMC): Provides materiel solutions to AFSPC requirements, to include the following:

2.3.18.37.1. **(Added-AFSPC)** Accomplishes core DP to develop acquisition roadmaps, develop system concepts, identify technology gaps, technology and safety risks, technology development and system engineering studies, and provide analysis in support of addressing HAF and AFSPC/CC identified DP capability priorities.

2.3.18.37.2. **(Added-AFSPC)** Assigns a program office to acquire space capability solutions. Provides developmental testing for capability solutions as programs mature. At Full Operational Capability (FOC), Systems Directorate program management responsibilities are typically retained, but may transfer to another agency for sustainment activities as deemed necessary by SMC.

2.3.18.37.3. **(Added-AFSPC)** Provides representatives for requisite ICTs and High Performance Teams (HPT) in the development of operational requirements documents. Develops DoD AF architecture products for JCIDS documents in coordination with the RL/ICT.

2.3.18.37.4. **(Added-AFSPC)** Provides feasibility and risk assessment for CDDs and CPDs IAW AFI 63-101_20-101, *Integrated Life Cycle Management*.

2.3.18.37.5. **(Added-AFSPC)** Leads the development and integration of SRDs and requirements-related system and standards viewpoint architecture products into the requirements development process, determines which data rights to obtain, and participates with ICTs in developing operational viewpoints. Ensures SRDs are coordinated with HQ AFSPC prior to release of final requests for proposal to industry, IAW AFI 63-101_20-101.

2.3.18.37.6. **(Added-AFSPC)** Through the SMC Senior Intelligence Officer (SIO), identifies intelligence-sensitive capability solutions and assists in the development, coordination and resolution of potential intelligence infrastructure deficiencies for new capabilities, integrated capabilities and sustained capabilities. Establishes and leads intelligence support working groups to that end. Works with the program office to propose production requirements, statements of intelligence interest, and Foreign Materiel Acquisition requests and submits them to HQ AFSPC/A2 for validation.

2.3.18.38. **(Added-AFSPC)** AF Network Integration Center (AFNIC)

2.3.18.38.1. **(Added-AFSPC)** Provides subject matter expertise for cyberspace requirements development ICTs as needed. Ensures network standards are included in the development of JCIDS products.

2.3.18.38.2. **(Added-AFSPC)** Drives integration of assigned programs and develops AFNET architecture products as required in conjunction with the product center in development of NR-KPP JCIDS products. Supports HQ AFSPC in development of Cyberspace domain architectures.

2.3.18.38.3. **(Added-AFSPC)** Provides architectural, engineering and technical consulting for product centers, DoD Agencies, Lead Commands and implementing

organizations. Ensures system, product and technology requirements relating to connectivity to the AFNET are addressed in JCIDS products.

2.3.18.38.4. **(Added-AFSPC)** Reviews and advises on Interoperability and Network Utilization requirements associated with the development of new systems and modifications or upgrades.

2.3.18.38.5. **(Added-AFSPC)** Performs network risk assessments to identify , track, and mitigate risks associated with the fielding of new both new and sustained capabilities for operation in the AFNET and provides mitigation recommendations. Provides verification and validation of new capabilities for operation in the AFNET.

2.3.18.38.6. **(Added-AFSPC)** Provides testing support to 24th AF (24 AF) as requested.

2.3.18.39. **(Added-AFSPC)** 24 AF.

2.3.18.39.1. **(Added-AFSPC)** Validates requirements for Rapid Cyber Acquisition (RCA) efforts that can be funded through the established RCA program element (PE).

2.3.18.39.2. **(Added-AFSPC)** Keeps HQ AFSPC informed of all requirements decisions for cyber needs.

2.3.18.39.3. **(Added-AFSPC)** Refers all cyber needs requiring permanent changes to form, fit, function or interface (F3I) configuration/sustainment of baselined Cyberspace weapon systems to HQ AFSPC for action, normally via the modification management process. If additional funding beyond the RCA PE is required, refers needs to HQ AFSPC for action.

2.3.18.39.4. **(Added-AFSPC)** In conjunction with AFLCMC and HQ AFSPC, tests and integrates potential solutions for modification and/or upgrade of existing cyberspace systems.

2.3.18.39.5. **(Added-AFSPC)** Where applicable, includes integration of materiel/non-materiel solutions produced under Real-Time Operations and Innovation (RTO&I) guidance per AFSPCGM2013-10-01 as part of prospective solutions to inform requirements development.

2.3.18.40. **(Added-AFSPC)** HQ AFSPC Requirements Interfaces with Other Organizations.

2.3.18.40.1. **(Added-AFSPC)** Other AF Organizations. HQ AFSPC works with other organizations and agencies to define and implement requirements. The AF Research Labs develop technologies and lead demonstration projects necessary for investigating new AFSPC capabilities. Other AF MAJCOMs/centers/agencies (e.g., AF Command and Control Integration Center, AF Intelligence Surveillance Reconnaissance Agency, AF Weather Agency) and Headquarters Air Force, work together with HQ AFSPC in defining joint space and cyberspace requirements while interfacing with the warfighter community.

2.3.18.40.2. **(Added-AFSPC)** AF Life Cycle Management Center (AFLCMC):

2.3.18.40.2.1. **(Added-AFSPC)** Responsibilities are IAW AFI 63-101_20-101, and are included here for information only. Assigns a program office to acquire

capability solutions. Accomplishes core Development Planning to develop acquisition roadmaps, develop system concepts, gather technology needs, develop technology roadmaps and system engineering studies, and provide analysis in support of fulfilling lead MAJCOM capability priorities for programs as assigned. At FOC, program management responsibilities for sustainment may transfer to an agency other than AFLCMC.

2.3.18.40.2.2. **(Added-AFSPC)** Leads the development and integration of SRDs and requirements-related system and standards viewpoint architecture products into the requirements development process and participates with ICTs in developing operational viewpoints. Ensures SRDs are coordinated with the HQ AFSPC prior to release of requests for proposal to industry, IAW AFI 63-101_20-101.

2.3.18.40.2.3. **(Added-AFSPC)** Through the AFLCMC SIO, identifies intelligence-sensitive capability solutions and assists in the development, coordination and resolution of potential intelligence infrastructure deficiencies for new capabilities. Establishes and leads intelligence support working groups to that end. Works with the program office to propose production requirements, statements of intelligence interest, and Foreign Materiel Acquisition.

2.3.18.40.3. **(Added-AFSPC)** Non-AF Organizations. Combatant commands (e.g., United States Strategic Command, United States Northern Command, United States Cyber Command), the space agencies of other services (U.S. Army Space and Missile Defense Command/Army Forces Strategic Command and Naval Network Warfare Command), allies/coalition partners, and external agencies (e.g., NGA, NRO, National Security Agency, National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration) develop capabilities that interface with AFSPC systems as either users or providers of data and information. HQ AFSPC partners with the Missile Defense Agency (MDA) to develop, test, field, operate and sustain Ballistic Missile Defense Systems. Staff agencies (e.g., Executive Agent for Space Office, Office of the Secretary of Defense, Joint Staff) work with HQ AFSPC to ensure that requirements, plans, and budgets are consistent with strategic guidance.

2.3.19. **Operating Command:**

2.3.19.1. Provides a focal point to facilitate command-wide review of operational capability requirements documents.

2.3.19.2. Provides core/support HPT members as appropriate for operational capability requirements document development and associated analysis.

2.3.19.3. Provides stakeholder inputs to the HPT lead and supports the briefings required at the AFRRG, AFROC, FCB, JCB, and JROC.

2.3.20. **Implementing Command (Air Force Materiel Command (AFMC), Air Force Space Command (AFSPC), or Air Force Civil Engineering Center (AFCEC)):**

2.3.20.1. Provides core and support HPT members as appropriate for operational capability requirements document development.

2.3.20.2. Conducts development planning as necessary to support requirements development activities and decisions.

2.3.20.3. Provides relevant information about prospective materiel solutions (e.g., the Concept Characterization and Technical Descriptions (CCTD)) to the Lead Command and SAF/AQR to inform requirements development and oversight activities supporting acquisition milestones, decision points, and phases.

2.3.20.4. Functions as the single point of entry (AFLCMC/XZI for non-space, AFSPC/A5X for space collateral programs, AFSPC/A8Z for SAP programs, and AFCEC/CXA for civil engineering programs) for receiving, evaluating, and responding to all requests for acquisition resources in support of pre-MDD development planning efforts for which there is no established program. Manages and executes resources to conduct DP activities in response to CFLI-documented capability needs to include performing early systems engineering and developing mature prospective materiel solutions before the AoA.

2.3.20.5. Assists the Lead Command in developing and preparing or executing AoAs and performing or contracting for concept studies.

2.3.20.6. Supports and briefs program management aspects at AFRRG, AFROC, FCB, JCB, and JROC, as appropriate.

2.3.20.7. In conjunction with the Lead Command, produces and presents life cycle cost vs. capability analysis and provides results at all requirements and acquisition forums and include in AoA Final Reports, CDDs, and CPDs.

2.3.20.8. Supports efforts to ensure capability mission effectiveness is assessed and life cycle cost analysis includes all interrelated systems needed in the expected operational environment to accomplish the end-to-end mission in terms of weapons, sensors, Command & Control, and platforms, to include integration costs.

2.3.20.9. Provides analytic expertise, assistance and guidance to ensure Sustainment KPPs and enterprise level considerations are properly addressed in operational capability requirements documents.

2.3.20.10. Certifies (with SAF/AQ) those requirements as described in ACAT I and CDDs: 1) can be translated for evaluation in a source selection in a clear and unambiguous way; 2) are prioritized (if appropriate); and 3) are organized into feasible increments of capability; 4) are technically feasible within programmatic limits. Certification occurs concurrently with presentation to the AFROC.

2.3.20.11. Attests that the capability requirements as described in all CPDs and delegated ACAT II and below CDDs are feasible. Attestation will be completed concurrently with document presentation to the AFROC.

2.3.20.12. Assists AF acquisition program offices with intelligence-sensitive programs in defining, documenting and resolving relevant threat, intelligence supportability and infrastructure requirements to support operational system development, test & evaluation and acquisition (IAW AFI 14-111 and AFI 14-205).

2.3.20.13. Applies disciplined systems engineering work-processes and builds/acquires the necessary tools to effectively manage the capability throughout its lifecycle, documented in all ICDs, CDDs and CPDs.

2.3.20.14. Provides intelligence health assessments to AF/A2 to support JCIDS intelligence certification process.

2.3.20.15. Provides awareness, source information, and evaluation results for technology exploration activities in support of development of appropriate operational capability requirements documentation.

2.3.20.16. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.20.17. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.20.18. Provides an IRSS POC to facilitate command-wide review of JCIDS requirements documents.

2.3.21. **Air Reserve Component (National Guard Bureau and Air Force Reserve Command):**

2.3.21.1. Coordinates with Lead Command during development of operational capability requirements documents for capabilities needed to accomplish assigned missions.

2.3.21.2. Provides a focal point to coordinate operational capability requirements documents with appropriate commands/agencies during document development and resolution of comments.

2.3.21.3. Provides GO level, RMCT-trained principal for all AFROC events and is able to speak for all organization responsibilities.

2.3.21.4. Provides O-6 level, RMCT-trained principal for all AFRRG events.

2.3.21.5. Provides core/support HPT members as appropriate for operational capability requirements document development.

2.3.21.6. Provides an IRSS POC to facilitate review of JCIDS requirements documents.

2.3.22. **AFMC/Office of Aerospace Studies (OAS):**

2.3.22.1. Assists AF/A5R, Lead Commands and field agencies with the development of CCTDs, AF study guidance, study plans, study organizing, and study execution for CBAs, Pre-MDD analyses, and AoAs.

2.3.22.2. Trains analysis leads, teams, and stakeholders. Training is based upon regulations, policy, best practices, and lessons learned. It is tailored to the specific analytic effort and addresses the planning, scoping, execution, and out-brief of the analysis.

2.3.22.3. Advises the Air Staff, AFROC, AFRRG, Lead Commands, teams, and stakeholders during the planning, execution, and review of the analysis.

2.3.22.4. Facilitates HPTs for developing AoA Study Guidance and AoA Study Plan.

2.3.22.5. Assesses the study guidance, study plan, and study final report/briefing. The assessment is advisory and given to the team, Lead Command, AFROC and AFRRG Principals.

2.3.23. **SAF/FMC and the Air Force Cost Analysis Agency (AFCAA):**

2.3.23.1. Provides cost guidance, oversight, review and limited analytical support.

2.3.23.2. Supports AoA cost analysis efforts.

2.3.23.3. Participates in the AoA to furnish guidance and policy in an advisory role.

2.3.23.4. Conducts a Non-Advocate Cost Assessment as resources allow.

2.3.24. **Air Force Requirements Review Group (AFRRG):**

2.3.24.1. Reviews and prioritizes AF operational requirements within the context of National Strategy and fiscal framework.

2.3.24.2. Evaluates alternatives to acquisition programs to meet operational requirements.

2.3.24.3. Conducts initial RSR to determine the best way to mitigate a capability gap, either through solutions which are materiel, non-materiel or a combination of both.

2.3.24.4. Reviews the following AF operational capability requirements documents: ICD, IS-ICD, Draft CDD, CDD, IS-CDD, CPD, AF originated Joint DCR, and AF DCR. Review follows an HPT and occurs before initial staffing and AFROC review and validation.

2.3.24.5. Reviews AF developed AoA Study Guidance, AoA Study Plans, and Final Reports.

2.3.24.6. Reviews SRDs for select programs.

2.3.24.7. Reviews all mandatory KPPs and KSAs in Draft CDDs, CDDs, and CPDs.

2.3.25. **Air Force Requirements Oversight Council (AFROC):**

2.3.25.1. Reviews, prioritizes and validates AF operational requirements within the context of National Strategy and fiscal framework.

2.3.25.2. Semiannually reviews and validates all risk assessments.

2.3.25.3. Evaluates alternatives to acquisition programs to meet operational requirements.

2.3.25.4. Reviews and validates DP priorities, FCCs, Air Force-sponsored JCTD submissions and Defense Advanced Research Projects Agency (DARPA) Memorandums of Agreement/Understanding based on recommendations from the DP and S&T governance structures.

2.3.25.5. Reviews, validates and recommends approval for the following AF operational capability requirements documents: ICD, IS-ICD, Draft CDD, CDD, IS-CDD, CPD, AF originated Joint DCR, and AF DCR.

2.3.25.6. Annually reviews a list of all CBA's and AoA topics for the upcoming year.

2.3.25.7. Validates AF developed AoA Study Plans and Final Reports.

2.3.25.8. Reviews non-AF AoA Study Plans and Final Reports with significant AF equity.

2.3.25.9. Validates UONs requests and Capability Transition Decisions (CTD) recommendations for all fielded UON/JUON/JEONs.

2.3.25.10. Records decisions and recommendations of the AFROC through signed AFROCM.

2.3.25.11. Ensures operational capability requirements documentation is prepared in accordance with AF and Joint Staff guidance.

2.3.25.12. The AFROC Special Session reviews and validates all AF operational capability requirements classified as SAP or having a classification level higher than Secret.

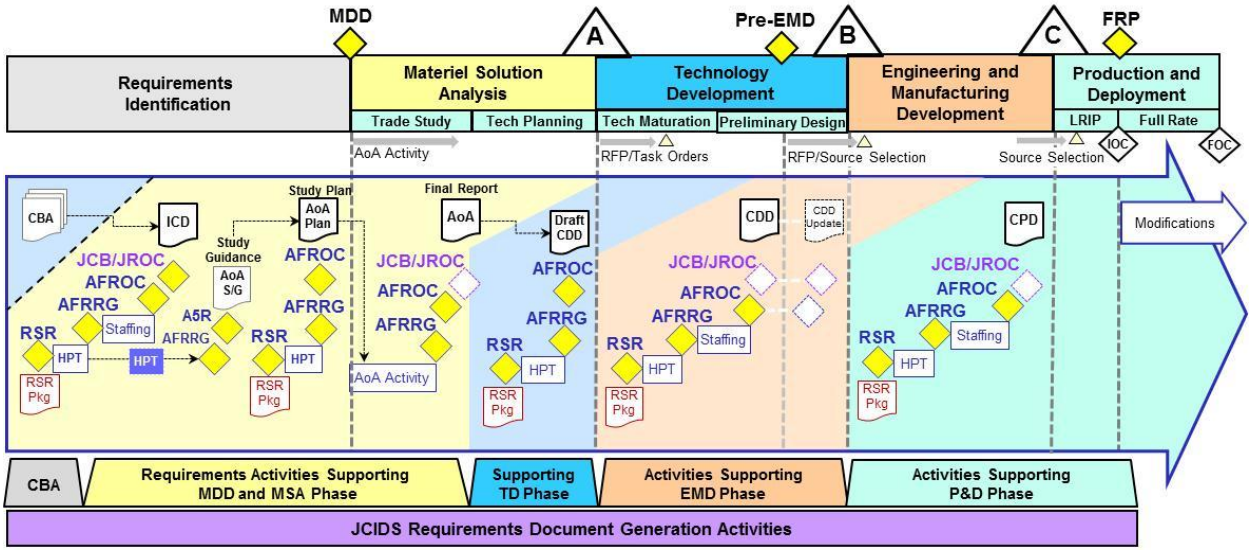
2.3.25.13. Reviews all mandatory KPPs and KSAs in Draft CDDs, CDDs and CPDs.

Chapter 3

REQUIREMENTS DEVELOPMENT & OVERSIGHT

3.1. Purpose. This chapter provides a description of the AF-specific requirements development and oversight process and procedures.

Figure 3.1. AF Requirements Development and Oversight Activities Supporting Acquisition Milestones, Decision Points and Phases.



3.2. Overview. The requirements development process begins when a CBA or other source identifies a new requirement and leads a MAJCOM Sponsor to propose a new JCIDS document. Before any JCIDS action can be taken, the sponsor prepares an initial requirements strategy, submits the request to AF/A5R-P for an AF Gatekeeper review, and ultimately presents the proposal to the AFRRG for approval. The purpose of this initial RSR will be to gain corporate AF buy-in and agreement to proceed forward and enter JCIDS. Following AFRRG approval, the sponsor may then initiate document development via the HPT concept. The AFRRG will review the draft document before submitting it for formal JCIDS staffing, followed by validation and approval via AFROC, and JCB/JROC (when required). For subsequent documents supporting the next phase of acquisition, the process repeats when the sponsor develops the document strategy for the follow-on document (CDD, CPD) and submits an RSR request for AF Gatekeeper review.

3.3. AF Gatekeeper (AFGK) Review. An AFGK review is an O-6 level review conducted by AF/A5R-P with appropriate AF/A5R division(s) to assess a program's readiness from a procedural compliance standpoint to meet entry criteria for the next step in the requirements process.

3.3.1. An AFGK review is conducted for all RSRs (pre-HPT), all Document Reviews (post-HPT) and as part of the normal prep-cycle leading up to any AFRRG review. AFGK approval is required before proceeding with the next step in the requirements process. An AFGK review can be waived at the discretion of AF/A5R-P.

3.3.2. AFGK Activity. During the AFGK Review, AF/A5R-P and appropriate AF/A5R Division(s) provide guidance and instruction to the document sponsor in preparation for the RSR and HPT; review any previous documentation and/or higher headquarters direction, decision memoranda; ensure necessary involvement from AF organizations, OSD, Joint Staff and other Services or Agencies.

3.3.3. AFGK Output. The AFGK will provide the document sponsor with direction or required actions to be accomplished (as necessary). Actions will be captured via email.

3.4. Requirements Strategy Review (RSR). Purpose of the RSR is to provide an initial review of a program before entering the JCIDS process or to conduct a follow-on review of a program after it has entered JCIDS. See the AF/A5R-P Requirements Portal pages for additional information on the RSR process (procedures, checklists, timelines, and templates).

3.4.1. Initial RSR. An Initial RSR is conducted by the AFRRG before convening the HPT event for initial entry into the JCIDS process (e.g. ICD). The AFRRG will provide a cross functional, corporate evaluation of identified requirement gap(s) and determine how to best to close the identified gap through solutions which are materiel, non-materiel or a combination of both. An Initial RSR will also be used in situations where a non-AF ICD is intended to be used in place of an AF-sponsored ICD to initiate an AF program. In this case, an RSR would be required before to convening the HPT to begin work on the AoA Study Guidance and Study Plan.

3.4.2. Follow-on RSR. A Follow-on RSR is normally conducted by the AFGK before convening the HPT event for follow-on requirements documentation for a previously approved and ongoing AF program (e.g. AoA Study Plan, AoA Final Report, CDD, CPD). The RSR by the AF/GK may be elevated to the AFRRG or AFROC, as directed, to review program changes that have occurred since the initial strategy was approved (e.g. significant changes in requirements, funding, or schedule).

3.4.3. The sponsor develops the requirements strategy in collaboration with the appropriate AF CFLI, Operating Command (operators), and Implementing Command representatives (to include systems engineers, testers, sustainers, and acquisition-intelligence analysts.) The AFGK/AFRRG will review the requirements strategy to include the following as applicable:

3.4.3.1. The sponsor’s CBA, the traceability to the CFMP and other CFMPs, and the linkages to the foundational requirements documents.

3.4.3.2. The risk assessment.

3.4.3.3. Relevant concepts that propose and describe solutions to the identified capability gap.

3.4.3.4. Determine if a materiel solution, non-materiel solution, or a combination of the two is required to mitigate the gap, determine which gaps will be mitigated in the CDD, or review the gaps mitigated by the CPD.

3.4.3.5. Determine/Review the scope for the proposed strategy/solution (e.g. single increment, multiple increments).

3.4.3.6. Determine when the capability needs to be delivered and how it will be sustained.

3.4.3.7. Project follow-on requirements oversight reviews and determine necessary interaction with the Joint Staff, other Services and OSD (if required).

3.4.3.8. Determine possible interaction(s) with other AF or joint systems.

3.4.3.9. Review proposed nomenclature; the proposed name of the ICD should reflect the core gap. CDD/CPDs will normally reflect the proposed solution.

3.4.3.10. Assess the initial affordability goal within the appropriate portfolio to close the identified gaps.

3.4.3.11. Review the proposed or documented KPPs, KSAs, and additional attributes.

3.4.3.12. Review solution costs to ensure solution remains affordable. Research Development Test and Evaluation (RDT&E) costs, Procurement costs and Lifecycle costs.

3.4.3.13. Review HPT membership and format (i.e. live or virtual).

3.4.4. RSR Requirements. An Initial RSR is required for all AF sponsored programs entering the JCIDS requirements process regardless of where the program enters the process (e.g. ICD, CDD, CPD, or Joint DCR). A Follow-on RSR is conducted to ensure a requirements program is progressing as intended before initiating each subsequent requirements document.

3.4.5. RSR Request Package. RSR packages will be submitted to AF/A5R-P from the Lead Command sponsor (O-6 level) NLT 60 days before the planned HPT event. See the AF/A5R-P Requirements Portal page for RSR Package checklist and templates.

3.4.6. RSR Output. The AFGK/AFRRG will provide the document sponsor with specific guidance and required actions to be accomplished (as necessary). Actions/decisions will be captured per prescribed AFGK or AFRRG procedures. The RSR decision and associated actions will be archived in IRSS.

3.5. High Performance Team (HPT). The purpose of the HPT is to provide the appropriate level of consistent cross-functional involvement in requirements generation from ICD to CPD to produce executable, risk-based, fiscally informed requirements that deliver affordable capabilities at optimal cycle time to the warfighter. The HPT concept is used to develop AF sponsored JCIDS documents, AoA Study Guidance, and AoA Study Plan. The HPT accelerates the documentation process, improves the quality of the requirements document, and can provide an enduring forum for developing, fielding, and sustaining operational systems.

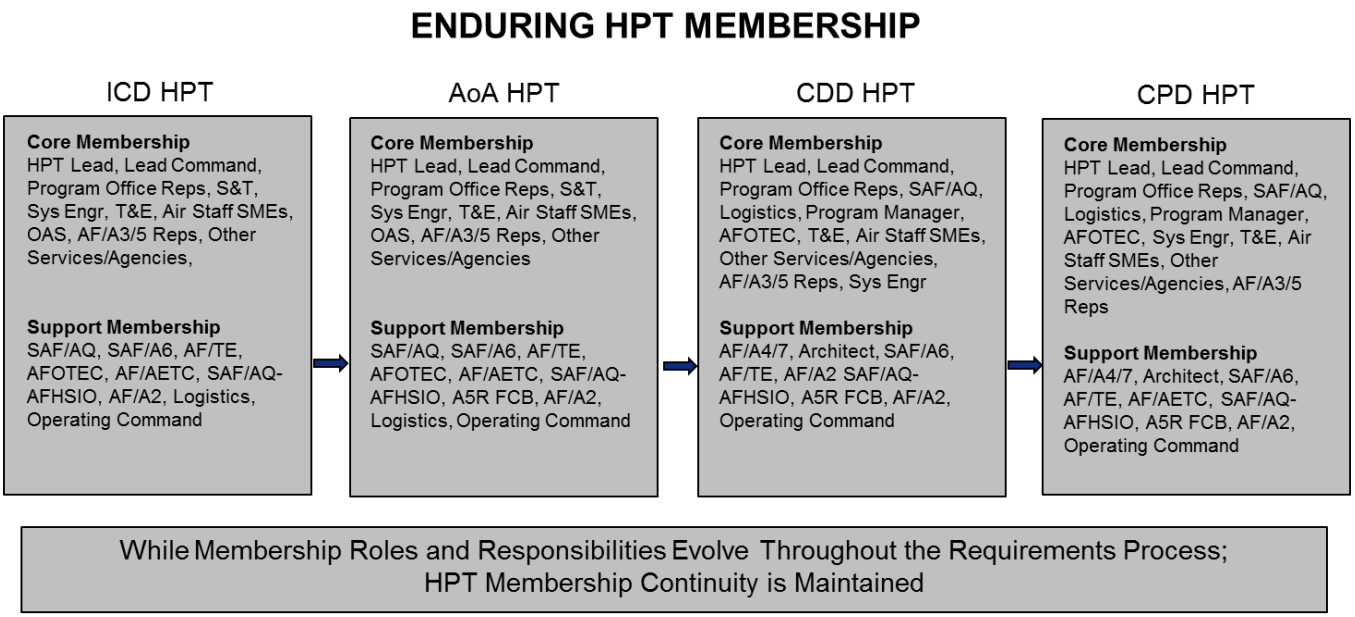
3.5.1. HPT Training. Sponsor leads and the HPT facilitator will be RMCT level B certified and other HPT members are highly encouraged to be RMCT level B certified. See **Chapter 8** for further guidance on RMCT requirements.

3.5.2. HPT Membership. HPT success hinges on participation from members with strong functional and requirements expertise. A representative from AF/A5R will normally facilitate an HPT. AFMC/OAS will normally facilitate HPTs for developing the AoA Study Guidance, and AoA Study Plan. In situations where an AF/A5R facilitator is unable to participate, AF/A5R-P will provide just in time training to a MAJCOM facilitator. Additionally, AF/A5R-P will maintain checklists, guides, templates, best practices and tips to ensure consistency and standardization in document development. HPT membership is made

up of core and support representatives. HPT membership is enduring throughout the requirements process and is determined at the RSR and reviewed at subsequent AFGK reviews before initiating an HPT. Core members are typically present for all HPT functions, but participation can be tailored based on the subject matter and is adjusted at the AFGK review. Support members are typically not physically present but available via phone or e-mail for reach back. See **Figure 3.2** for additional information on the enduring HPT membership concept.

3.5.3. Electronic HPT. Depending on the topic and level of work required to be accomplished, an HPT may be conducted electronically (VTC, phone, email).

Figure 3.2. Enduring HPT Membership



3.6. Air Force Requirements Review Group (AFRRG). The AFRRG is a corporately chartered, decision making body which provides direct support to the AFROC. The AFRRG is charged with conducting an initial RSR for all programs entering the JCIDS process, reviewing all AF sponsored JCIDS documents before staffing and reviewing all AF sponsored AoA documentation before A5R/AFROC approval as appropriate. During these reviews the AFRRG will focus on gap mitigation, operational utility, affordability, life cycle costs vs. capability analysis, operational and/or force management risk. Additionally, the AFRRG will provide a cross functional review of select program SRDs before MAJCOM endorsement. Reference **Figure 3.1** for when AFRRGs are required.

3.6.1. AFRRG Participation. The AFRRG is chaired by AF/DA5R and is composed of O-6 level voting principals from designated MAJCOM, FOA, DRU, and HAF organizations. In addition, AFRRG membership includes several advisory functions to assist principals in their decision-making processes. AFRRG membership mirrors the AFROC principals and advisors. AFRRG principals are required to attend all AFRRG functions or notify and obtain AFRRG Chairman approval for any designated alternate.

3.6.2. AFRRG Output. The AFRRG decision and associated actions will be captured in an AFRRG Memorandum (AFRRGM) and archived in the IRSS database.

3.7. Air Force Requirements Oversight Council (AFROC). The AFROC provides validation decisions for AF operational requirements documents and issues that impact requirements. See Paragraph 2.3.25 and the AF/A5R-P Requirements Portal pages for additional information on the AFROC process. Reference Figure 3.1. for when AFROCs are required.

3.7.1. AFROC Participation. The AFROC is chaired by AF/A5R and is composed of General Officer and Civilian Senior Executives (CSE) level voting principals from designated MAJCOM, FOA, DRU, and HAF organizations. In addition, AFROC membership includes several advisory functions to assist principals in their decision-making processes. AFROC principals are required to attend all AFROC functions or notify and obtain AF/A5R approval for any designated alternate.

3.7.2. AFROC Output. The AFROC decision and associated actions will be captured in an AFROCM and archived in the IRSS database.

3.8. Electronic AFRRG or AFROC (eAFRRG/eAFROC). An eAFRRG or eAFROC may be convened in cases where a decision is needed to be made by the AFRRG or AFROC body outside of the regularly scheduled AFRRG/AFROC cycle or in cases where the regular agenda is full and cannot wait until the next scheduled requirements review. eAFRRG and eAFROC will normally provide the principals five working days to review the materials. Principals are required to respond to eAFRRG/eAFROC in accordance with the AFRRG/AFROC Charter.

3.9. Functional Capabilities Boards (FCB). Joint Staff FCBs are established according to JCAs to assist the JCB and JROC. Service sponsored requirements documents are assigned to FCBs based on JCAs. FCBs and FCB Working Groups provide the analytical underpinning for developing and refining issues that support JCB/JROC recommendations. AF FCB Leads ensure AF interests are represented throughout the Joint Staff process.

3.10. Joint Capabilities Board (JCB). The JCB assists the JROC in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all operational capability requirements documents designated as JROC Interest before their submission to the JROC. The JCB reviews and validates operational capability requirements documents designated as JCB Interest. JCB outcomes and decisions are captured in a JROC Memorandum (JROCM). Guidance on the JCB is provided in CJCSI 5123.01, *Charter of the Joint Requirements Oversight Council*.

3.11. Joint Requirements Oversight Council (JROC). The JROC reviews and validates operational requirements documents with a JSD of JROC Interest. The JROC, at its discretion, may review any operational requirements document or any other issues that may have Joint interests or impacts. AF/A5R tracks and facilitates issues through the JCIDS process and prepares the VCSAF for JROC participation. JROC outcomes and decisions are captured in a JROCM. AF/A5R will ensure JROCMs that require specific AF actions are tasked to the appropriate HAF Functional/MAJCOM. Guidance on the JROC is provided in CJCSI 5123.01.

3.12. (Added-AFSPC) AFSPC Requirements Development. When HQ AFSPC is assigned as the Lead Command for a needed capability, it has the responsibility to develop and document operational capability requirements in accordance with the provisions of this AFI. HQ AFSPC/A5 appoints a RL to be the agent for executing this responsibility. The ICT assists the

RL in this effort. The HQ AFSPC Requirements Group and Board review the requirements, while HQ AFSPC/A5X, Strategic Requirements Division, provides functional support for the requirements process and ensures the RL can successfully navigate the staffing and approval processes within HQ AFSPC and through the Air Staff and Joint Staff. HQ AFSPC/A5X assists and advises RLs on standardized briefing formats for HQ AFSPC Requirements Group and Board processes, as well as AFROC briefing templates, which can be found in the Information and Resource Support System (IRSS) on SIPRNet. To obtain an IRSS account contact HQ AFSPC/A5XS.

3.12.1. **(Added-AFSPC)** HQ AFSPC/A5X serves as the primary POC between the MAJCOM and AF/A5R-P for all process and policy issues. All submissions for AF Gatekeeper, AFRRG or AFROC consideration will be made by A5X.

3.12.2. **(Added-AFSPC)** Requirements Team Lead (RL). The RL is the focal point for developing, coordinating, and gaining approval for the operational capability requirements documents. The RL is also the primary advocate for the resultant solution. The RL represents HQ AFSPC and AF positions in the requirements process through each acquisition milestone as discussed in this AFI. As such, the RL must be a government employee. The RL will:

3.12.2.1. **(Added-AFSPC)** Serve as the primary POC between the MAJCOM and the SME Division within AF/A5R. The RL will provide HQ AFSPC/A5X with evidence of AF/A5R SME division concurrence prior to requesting submittal of draft documents to the AF Gatekeeper, AFRRG or AFROC.

3.12.2.2. **(Added-AFSPC)** Provide advocacy and supporting documentation to the HQ AFSPC PEM as part of the PPBE process for obtaining funding for the development of a capability solution. The RL may also serve as a HQ AFSPC PEM for PORs on the related subject area or funding line.

3.12.2.3. **(Added-AFSPC)** Brief HQ AFSPC Requirements Group and Board on requirements programs, and present decision briefings to the AFRRG and AFROC.

3.12.2.4. **(Added-AFSPC)** The RL will keep the responsible Division Chief, HQ AFSPC/A5, HQ AFSPC/A3, all pertinent directorates, HQ AFSPC PEM, and program office informed of program progress through the ICT.

3.12.2.5. **(Added-AFSPC)** Additional process guidance/timelines are available in the Requirements Team Lead Handbook located on the A5X web site.

3.12.2.6. **(Added-AFSPC)** Identify technology needs, develop technology roadmaps and track AFRL's efforts to support technology maturation in collaboration with SMC. Additionally, RLs advocate for future and enabling concepts which help organize maturing technologies, new CONOPS and desired capabilities in a way to explore alternate future systems and guide S&T and R&D investments along with capability-based requirements document development.

3.12.3. **(Added-AFSPC)** Integrated Concept Team (ICT). When tasked to pursue a capability solution (materiel or non-materiel), the RL forms and leads an ICT on behalf of A5 to develop requirements for the capability solution. The tasking may be the result of top-down direction, IPP, or other analysis identified via the CBA methodology. The RL is the

chair of the ICT with the authority to task members to accomplish the actions needed to develop and coordinate capabilities documents. The RL will prepare a charter for the team to be approved by the appropriate HQ AFSPC/A5 Division Chief. Refer to the Requirements Team Lead Handbook for ICT charter information.

3.12.3.1. **(Added-AFSPC)** The ICT is normally an action officer-level working group. The ICT assists the RL in defining the requirements and coordinating the requirements documents. The ICT is formed by the RL requesting participation from stakeholders. The team will consist of members from each directorate, as necessary, plus other stakeholders who have responsibility for operational use, acquisition, sustainment, testing, training, exercises, information assurance and interoperability. Cyber RLs will coordinate activities with HQ AFSPC/A3I-led Cyber Weapon System Teams (WST) to achieve synergies and prevent duplication of effort. The user, product center representative (from SMC or AFLCMC) and HQ AFSPC-level PEM are key participants of the ICT. In addition, representatives from the capability HPT and from other services/agencies in joint mission areas may be members. ICT members will keep their organizations informed of program status.

3.12.3.2. **(Added-AFSPC)** Once the ICT has drafted an initial set of requirements, the RL requests permission to form a HPT to write the capability document leading to a capability solution. The request is in the form of a briefing called the Requirements Strategy Review (RSR), and is presented to the AFRRG, normally via secure VTC. Reference the AF/A5R-P web page for recommended HPT membership and RSR information. The resultant document(s) will then enter staffing IAW **Chapter 3** of this AFI.

3.12.3.3. **(Added-AFSPC)** Training Planning Team (TPT). The TPT is a subset of the ICT and is the primary body for identification of training requirements in the acquisition and management of training systems. Reference AFSPCI 36-283, *Space Training Systems Management* for additional details.

3.12.4. **(Added-AFSPC)** HQ AFSPC Requirements Reviews. After completion of AF and Joint coordination and comment resolution, operational capability requirements documents will be reviewed by the HQ AFSPC Requirements Group/Board process.

3.12.4.1. **(Added-AFSPC)** The HQ AFSPC Requirements Group meeting is chaired by the HQ AFSPC/DA5, with the respective A5 Division Chief(s) in attendance. Voting membership consists of Deputy Directors or the appropriate Division Chief(s) representing each Directorate. The RL will present the draft AFROC briefing for the proposed requirements document. The Group thoroughly analyzes all issues and makes recommendations to the RL and the Board. HQ AFSPC/A5X acts as secretariat for the HQ AFSPC Requirements Group.

3.12.4.2. **(Added-AFSPC)** The HQ AFSPC Requirements Board is chaired by HQ AFSPC/A5, with other Directors as voting members. This is the second level of corporate review for documents going forward to the AFROC. The Board also approves/disapproves CBA initiation proposals and subsequent CBA reports. HQ AFSPC/A5X acts as secretariat for the AFSPC Requirements Board.

3.12.4.3. **(Added-AFSPC)** HQ AFSPC/A5X will schedule and announce the Requirements Group/Board meetings, and distribute electronic briefing slides approximately 2 days prior to the scheduled meeting.

3.12.4.4. **(Added-AFSPC)** For documents requiring AFSPC/CC certification IAW AFI 63-101_20-101, and/or AFSPC/CC/CV transmittal memo IAW this AFI, the RL will forward a staff package through their respective Division Chief and HQ AFSPC/A5 for CV/CC approval and signature. If directed, the RL will meet with CV/CC to brief the proposed document. Reference the Requirements Team Lead Handbook located on the HQ AFSPC/A5X web page for specific procedures and templates.

3.12.4.5. **(Added-AFSPC)** HQ AFSPC/A5, along with the respective PM, will attest to the AFROC the feasibility of requirements in delegated ACAT II and all ACAT III CDDs/CPDs for which SMC provides the program manager. Reference the Requirements Team Lead Handbook located on the HQ AFSPC/A5X web page for specific procedures and templates.

3.12.4.6. **(Added-AFSPC)** After Group/Board approval and CV/CC review (if required), the RL, through HQ AFSPC/A5X, will schedule and present the requirements document to the AFROC for AF approval. JCB /JROC Interest documents (as designated by JS/J8) will proceed through the FCB/JCB/JROC respectively for final approval. This entire process is repeated for each subsequent requirements document (CDD and CPD) as a program matures.

3.12.4.7. **(Added-AFSPC)** Transmittal. A transmittal memo will accompany all requirements documents loaded into IRSS for AFROC consideration. For ACAT I documents, the transmittal memo will be signed by AFSPC/CC. AFSPC/CV will sign the memo for ACAT II documents, and AFSPC/A5 for ACAT III documents. Reference the Requirements Team Lead Handbook located on the HQ AFSPC/A5X web page for specific procedures and templates.

3.13. (Added-AFSPC) CDDs and CPDs: Are source documents for product centers to produce SRDs. SRDs to be used in conjunction with a request for proposal (RFP) will be coordinated with the cognizant HQ AFSPC/A5 division prior to release of the final RFP. This ensures common understanding between the requirements and acquisition communities regarding capability requirements and requirements documents used for solicitation. Coordination will be IAW AFI 63-101_20-101. Reference the Requirements Team Lead Handbook located on the HQ AFSPC/A5X web page for specific procedures and templates.

3.14. (Added-AFSPC) AFSPC/CC Touch Points for Requirements. As commander of the Lead MAJCOM with organize, train and equip responsibilities for space and cyberspace operations, and as Component-MAJCOM commander to USSTRATCOM for space and cyberspace operations, AFSPC/CC must have direct influence in the development of warfighter requirements. As such, the RL will prepare briefings and/or staff packages for CC consideration at key “touch points” in the life cycle of the concept-to-reality development of requirements as deemed necessary by HQ AFSPC/A5. These points may include, but are not limited to, enabling concept completion, all ACAT I (or potential ACAT I) CDD/CPDs prior to AFROC exposure, and program reviews prior to each milestone. For all ACAT programs (I-III), the AFSPC/CC must consent to any changes to KPPs or key system attributes (KSA) prior to presentation to the AFROC.

Chapter 4

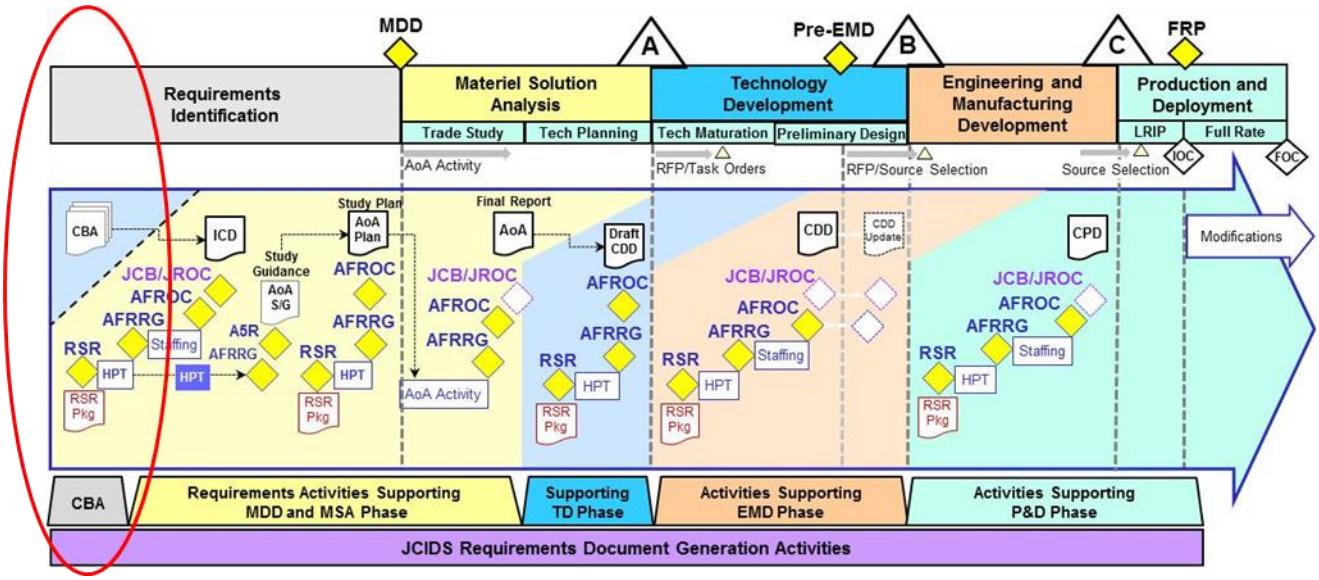
GUIDANCE FOR STUDIES & ANALYSIS & REQUIREMENTS DOCUMENTS

4.1. Purpose. This chapter provides a description of AF requirements studies and analysis activities and JCIDS/AF requirements documents. It provides guidance for developing AF sponsored CBAs, ICDs, AoA Study Guidance, AoA Study Plans, AoA Final Reports, Draft CDDs, CDDs, CPDs, IS-ICDs, IS-CDDs, Joint DCRs, and AF DCRs. Additionally, this chapter includes guidance on developing KPPs and KSAs for the Draft CDD, CDD and CPD.

4.2. Overview. The requirements process operates in an iterative manner where initial capability requirements drive the early acquisition process, and the early acquisition process drives updates to capability requirements documents related to specific materiel and non-materiel capability solutions being pursued. The JCIDS process refines the capability requirements through each successive requirements document. The operational capability requirements process normally begins with the execution of a CBA.

4.3. CBA. The CBA is the first formal study in the requirements process. The CBA forms the analytic basis for operational capability requirements development and is an integral part of the capabilities-based planning process. A CBA is an analytic basis to identify requirements and associated gaps in context of warfighting risk. In the early stages of the CBA, analysts should consult the Contract Studies Registry Program for related or similar studies and the Joint Lessons Information System database for any applicable information. The CBA consists of the following activities: analyzing what is required for the warfighter across specific functional areas to accomplish the assigned mission (defining the capability required), comparing the capability required to the capabilities provided by any existing and programmed systems (gap analysis), and identifying associated gaps and/or redundancies. Assigned missions should be designated AF missions with approved CONOPs. The final step of the CBA is to analyze the full DOTmLPF-P spectrum where the "m" is existing materiel in the inventory (COTS, GOTS, or NDI). The CBA will determine to what extent the gaps can be closed or mitigated without the acquisition of new materiel. Study Plans and Final Reports are required for all CBAs and should conform to the guidance provided below. Additional details on the CBA are provided in the JS/J8 JCIDS Manual, and the AFMC/OAS analysis handbooks.

Figure 4.1. Requirements Overview – CBA



4.3.1. CBA Study Plan. The CBA Study Plan outlines the mission area(s) to be analyzed in the CBA.

4.3.1.1. Entry Criteria. The sponsor will notify the MAJCOM Director of Requirements for approval to proceed before initiating CBA Study Plan.

4.3.1.2. HPT Guidance. An HPT is not required for a CBA Study Plan but Lead Commands are encouraged to establish effective dialog with key stakeholders to fully define the scope of the operational deficiency.

4.3.1.3. Review & Staffing Guidance. There is no HAF review or staffing required for CBA Study Plans. Lead Commands will submit a study initiation notice to AF/A5R-P upon initiation of CBA.

4.3.1.4. Approval Criteria. The MAJCOM Director of Requirements, or higher, approves the CBA Study Plan. See the AFMC/OAS Handbook for additional guidance on the CBA Study Plan.

4.3.1.5. Exit Criteria. An approved study plan by the MAJCOM Director of Requirements, or higher, completes the CBA Study Plan process.

4.3.2. CBA Final Report. The sponsor is responsible for executing the CBA with assistance from AFMC/OAS. Ideally, core membership for a CBA study team includes representatives from the appropriate CFLI, Lead Command, Operating Command, Implementing Command(s), HAF Division(s), representatives from other agencies/Services, combatant commands, and others as needed. The CBA Final Report captures and presents the methodology and results of the analysis. The CBA results outlined in the final report are further developed into COAs. The identified COAs will reside within the body of the CBA Final Report. Additional guidance is available in the AFMC/OAS analysis handbooks.

4.3.2.1. Entry Criteria. A MAJCOM approved CBA study plan is required to proceed with the execution of the CBA.

4.3.2.2. HPT Guidance. An HPT is not required for a CBA Final Report; though the key stakeholders and representatives should be involved in the development of the final report.

4.3.2.3. Review & Staffing Guidance. There is no HAF review or staffing required for CBA Final Reports.

4.3.2.4. Approval Criteria. In order to substantiate follow on JCIDS activities, the CBA must address the following issues:

4.3.2.4.1. Identification of gaps and recommendations about which gaps and risks do not need to be addressed at this time; which gaps have acceptable operational risk.

4.3.2.4.2. Identification of what degree each gap can be mitigated by better use of current capability, as described in approved concepts, and the resulting impact on operational risk. This should include recommendations concerning the changes to doctrine and/or Tactics, Techniques and Procedures.

4.3.2.4.3. Identification of how much of each gap can be solved with changes in DOTmLPF-P rather than pursuing a new materiel solution. This should include recommendations concerning the Joint DCRs and AF DCRs that should be developed.

4.3.2.4.4. Recommendations about whether buying additional quantities of a previously acquired system would mitigate the gap. This should include recommendations concerning the Joint DCRs and AF DCRs that should be developed.

4.3.2.4.5. Recommendations about whether S&T investments are required before initiation of any acquisition activities. Concepts should be documented in CCTDs and be technically feasible within possible programmatic limits.

4.3.2.4.6. Recommendations on which gaps can be mitigated by making changes to current and ongoing acquisition programs and efforts, and which ones may require a new materiel solution and should be included in an ICD.

4.3.2.4.7. Identification of the minimum key values and the tradespace curves that define the key values.

4.3.2.4.8. Identification of the rough order of magnitude (ROM) cost estimates for each of the identified potential solutions (non-materiel or materiel).

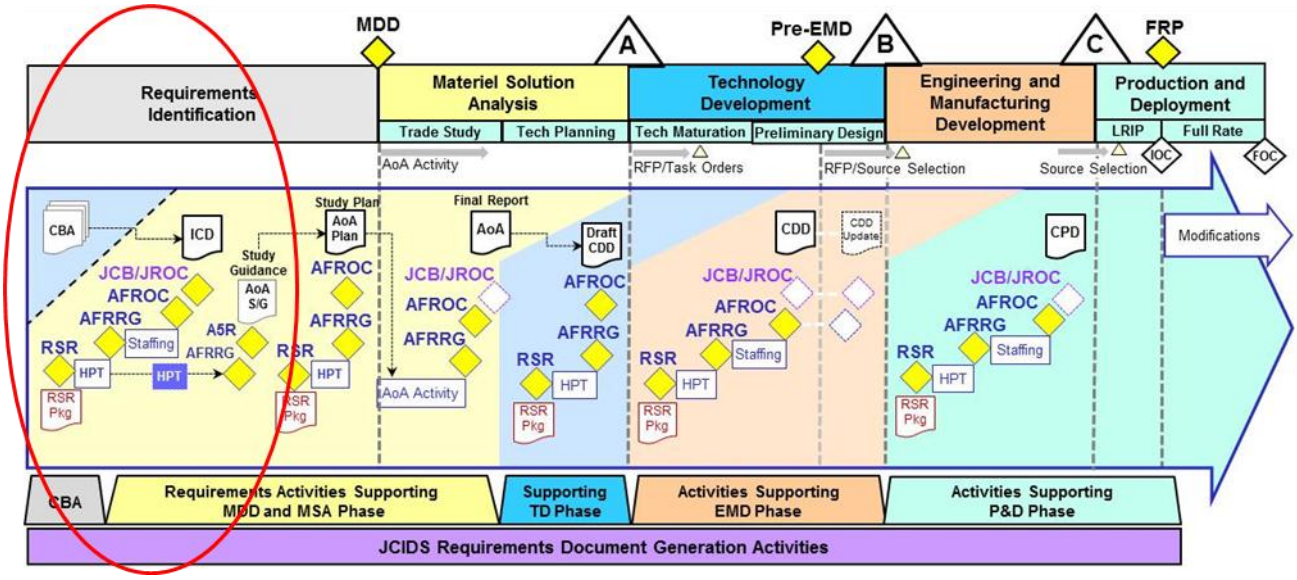
4.3.2.4.9. Identification of potential system dependencies for intelligence community data.

4.3.2.4.10. Identification and scope of additional information/analysis needed before initiation of any acquisition activities; to include ICD development or MDD request.

4.3.2.5. Exit Criteria. A CBA Final Report is approved by the MAJCOM Director of Requirements, or higher. Once the CBA Final Report has been approved, the MAJCOM requirements office/FOA will forward the final report to AF/A5R-P. AF/A5R-P will archive the final report in the IRSS database and submit the CBA, as appropriate, to the JS.

4.4. ICD. If the CBA recommends a materiel solution, the next step in the requirements process is an ICD. ICD development occurs before MDD. The ICD along with the AoA Study Guidance and AoA Study Plan, are required to proceed to a MDD. The ICD documents the need for a new materiel approach(es) to satisfy specific capability gap(s). The ICD articulates the necessity to resolve the specific capability gap(s) identified typically through an approved CBA. The follow-on of an ICD could be one or more Draft CDDs, CDDs, CPDs, Joint DCRs, or a combination of these documents. Reference the JCIDS Manual and the AF/A5R-P website for additional guidance on ICDs.

Figure 4.2. Requirements Overview – ICD



4.4.1. Entry Criteria. A MAJCOM approved CBA or equivalent analysis is required to proceed to an RSR request for an ICD. The CBA/analysis must be based upon an approved CONOPS and include a risk assessment that indicates significant operational risk. The CBA/analysis must also document that the way to mitigate the gap is with a materiel solution. ICD initiation requires an Initial RSR and approval to proceed with ICD development from the AFRRG.

4.4.2. ICD Strategy Development. The ICD requirements strategy establishes the path necessary to develop a quality ICD that is capable of guiding future capability development activities. Continuous collaboration ensures the requirements strategy addresses required capabilities identified in the CBA and/or applicable Joint and AF concepts, capabilities-based planning documents and other pertinent guidance.

4.4.3. RSR Guidance. An Initial RSR is required for all ICDs. Refer to **Paragraph 3.4** for additional RSR guidance.

4.4.4. HPT Guidance. An HPT is required for all AF sponsored ICDs. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.4.5. Review & Staffing Guidance. After the ICD is developed, it is reviewed by the AFRRG for approval to initiate initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, and approved by the CSAF (ACAT I) or VCSAF. The level of Joint review and

validation beyond the AFROC is dependent upon the document's JSD. See **Table 5.1** for additional details.

4.4.6. Approval Criteria. The ICD will comply with the JCIDS Manual format(s) and guidance. Additionally, during the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.4.6.1. A description of the capability gap and the operational and/or force management risk of not filling the gap that includes a clear description of current/programmed capability compared to the capability required to meet the mission at some future date. A description of the analysis used to determine required capabilities.

4.4.6.2. A CONOPS Summary that provides the operational context for understanding the need and the solution tradespace. This summary should include: desired operational outcomes, desired effects to achieve outcomes, and an overview of how capabilities are envisioned to be employed and complement Joint Forces and enabling capabilities.

4.4.6.3. A methodology/rationale for the minimum values for each gap identified in the ICD with reference to the key supporting analysis.

4.4.6.4. The initial affordability assessment within the context of the appropriate portfolio.

4.4.6.5. Proposed recommendation(s) to mitigate the capability gap.

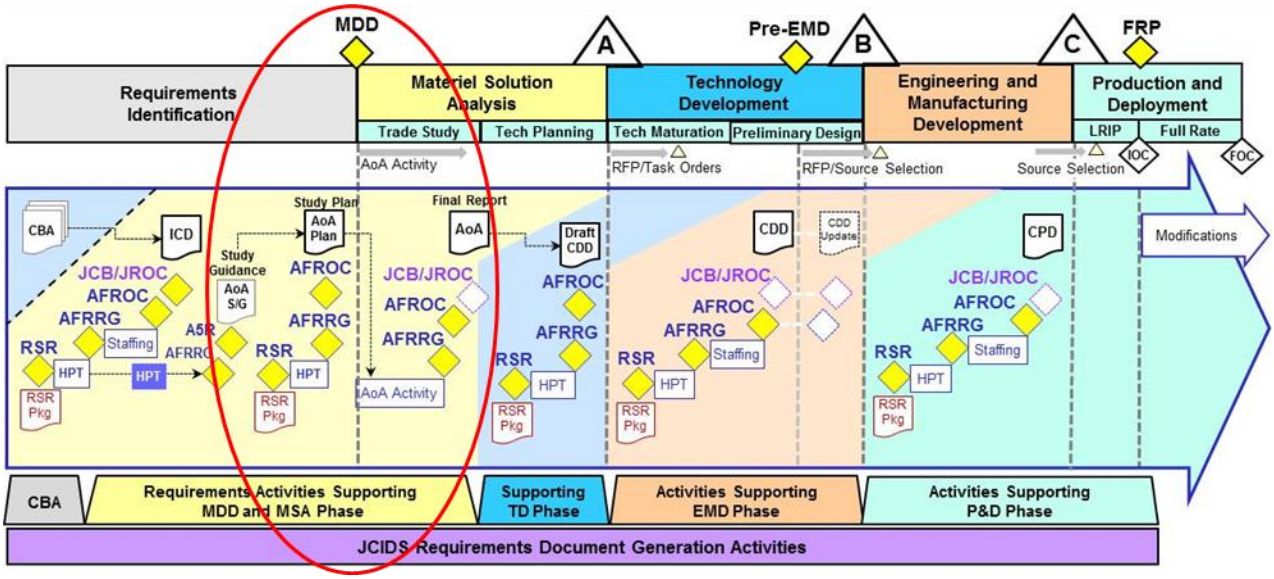
4.4.6.6. An assessment of pre-MDD analysis and determination of readiness to proceed with development of the AoA Study Plan.

4.4.7. Exit Criteria. A validated ICD completes the ICD process. ICD validation should include 1) designation of the appropriate Lead Command (as required) and 2) approval to proceed in development of the AoA Study Plan, as appropriate.

4.5. AoA Documents. Following an ICD the next formal step in the process are the AoA documents. However, before beginning an AF sponsored AoA, sufficient pre-AoA activities need to be conducted to sufficiently refine the requirement and scope the alternatives. This is normally conducted through DP. This is Pre-MDD early systems engineering analysis and analysis planning. The AoA is usually conducted post-MDD during the Materiel Solution Analysis Phase and is an analytical comparison of the operational effectiveness, suitability, risk, and life cycle cost of alternatives that satisfy validated capability needs (usually stipulated in an approved ICD). The AoA helps decision-makers understand the tradespace for new materiel solutions to satisfy an operational capability need, while providing the analytic basis for performance attributes documented in follow-on JCIDS documents. The AoA is not a source selection where a particular materiel solution is identified, but rather refines the capabilities by narrowing the scope of potential alternatives and helps refine the requirements. The sponsor is responsible for executing the AoA with assistance from AFMC/OAS. Ideally, the AoA study team evolves from the CBA and pre-MDD analysis study teams as well as the enduring HPT membership and includes representatives from AFMC/OAS, HAF organizations, representatives from other agencies/Services, Implementing Command , and others as needed. AoA guidance is available in the AFMC/OAS analysis handbooks. The sponsor will notify AF/A5R before initiating any AoA activities via a study initiation memo as prescribed in the JCIDS Manual. Normally, a Senior Advisory Group (SAG), chaired by OSD/CAPE will oversee the execution of

ACAT I/JROC Interest AoAs. In situations where the AoA Study Lead and/or SAG elects to significantly revise the conditions, assumptions, mission tasks, or alternatives in the AFROC-approved AoA Study Plan, the AF Sponsor will notify AF/A5R. In such cases, AF/A5R may request the Sponsor provide an interim progress briefing be presented to the AFRRG/AFROC (as required). In short, the AoA must provide clear and unambiguous data, enabling senior AF leaders the ability to debate and assess a potential program's operational utility, affordability, and cycle time. An AoA is required for all acquisition programs. The AoA consists of three distinct documents, AoA Study Guidance, AoA Study Plan, and the AoA Final Report. Additional guidance is listed below on each of these three activities.

Figure 4.3. Requirements Overview – AoA



4.5.1. AoA Study Guidance. AoA Study Guidance and ICD are required before proceeding with the AoA Study Plan RSR. AoA Study Guidance is developed to address the critical areas that need to be explored during the AoA. This study guidance will build upon the initial input identified during the ICD HPT and during the tradespace characterization and candidate solution sets selection phases of the associated DP effort.

4.5.1.1. Entry Criteria. The sponsor must have the following to proceed with AoA Study Guidance: a validated ICD, AFROC approval, and Lead Command determination that sufficient pre-MDD analysis is complete and the program is ready to proceed to a MDD.

4.5.1.2. HPT Guidance. AoA Study Guidance is normally constructed at the ICD HPT. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.5.1.3. Review & Staffing Guidance. After the AoA Study Guidance has been developed it is submitted to the AFRRG for review, and then AF/A5R for approval to be released to CAPE (as required). For those AoAs where Director, CAPE elects not to provide AoA Study Guidance, AF/A5R will serve as the approval authority.

4.5.1.4. Approval Criteria. The AoA Study Guidance will be written in accordance with the OAS Handbook. Additionally, during the AFRRG review, as a minimum, the following items will be reviewed:

4.5.1.4.1. Background - discuss the specific ICD gaps that will be addressed by the AoA. This section should also discuss the previous analysis efforts leading up to the AoA, and identify all approved concepts that address the capability gap being studied.

4.5.1.4.2. Purpose - identify what decisions the AoA will be supporting.

4.5.1.4.3. Scope - identify the focus of the analysis. Most importantly, this section needs to identify those areas that are NOT part of the AoA.

4.5.1.4.4. Major Questions - identify the key questions that stakeholders and senior decision makers need answered by the AoA.

4.5.1.4.5. Ground Rules, Constraints and Assumptions - identify overarching ground rules, constraints and assumptions for the analysis. This section should include identification of the affordability constraints.

4.5.1.4.6. Alternatives - identify the specific alternatives and any other alternatives the decision makers identified as part of the tradespace. Each alternative prospective materiel concept shall be documented in a CCTD. Upon approval for release by the Center Technical Authority, CCTDs will be reviewed by the AF Chief Engineers office (SAF/AQR) then posted to IRSS for stakeholder review as appropriate before AFRRG review of AoA Study Guidance.

4.5.1.4.7. Threats & Scenarios - identify the specific threats associated with this mission area and the DPG scenarios to be used in the AoA.

4.5.1.4.8. Measures of Effectiveness (MOE) - identify the specific measures that decision makers are most interested in to support the next decision point. These should be traceable to the MOE from the CBA that identified the gaps.

4.5.1.4.9. Measures of Suitability (MOS) - identify the specific measures that decision makers are most interested in to support the next decision point. These should be traceable to the MOS from the CBA that identified the gaps.

4.5.1.4.10. Life Cycle Cost Analysis - identify the specific considerations for the life cycle cost analysis.

4.5.1.4.11. Sensitivity and Risk Analysis - identify the specific considerations for sensitivity analysis and risk analysis such as: any areas where the decision makers need to know the impact to operations if less than optimal performance is accepted.

4.5.1.4.12. Sufficiency - identify how and by whom the sufficiency review will be accomplished.

4.5.1.4.13. Oversight - identify the oversight and stakeholder involvement.

4.5.1.4.14. Deliverables - identify deliverables and the timelines associated with each deliverable.

4.5.1.5. Exit Criteria. AF/A5R or D/CAPE, approved AoA Study Guidance completes the AoA Study Guidance portion of the AoA and is required before proceeding with an RSR for the AoA Study Plan.

4.5.2. AoA Study Plan. The AoA Study Plan is developed to scope the AoA study.

4.5.2.1. Entry Criteria. An AF/A5R or CAPE approved Study Guidance and an RSR is required to initiate the AoA Study Plan.

4.5.2.2. HPT Guidance. An HPT is required for an AoA Study Plan. Refer to **Paragraph 3.5** for additional guidance on HPTs.

4.5.2.3. Review & Staffing Guidance. After the AoA Study Plan is developed, it is reviewed by the AFRRG and the AFROC, and is approved by the CSAF (ACAT I) or VCSAF for release to D/CAPE, if required.

4.5.2.4. Approval Criteria. The study plan will be written in accordance with the OAS Handbook. Additionally, during AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.5.2.4.1. Definition of the specific gaps that are being addressed in the AoA.

4.5.2.4.2. Definition of the baseline capability to include existing and/or planned and programmed systems.

4.5.2.4.3. Identification of the stakeholders and their roles/responsibilities in the AoA.

4.5.2.4.4. Plan to address the key questions identified in the AoA Study Guidance.

4.5.2.4.5. Plan to address the alternatives identified by the AoA Study Guidance and any others to be considered during the study. These alternatives include methods of employment and other critical systems/enablers necessary to make them effective. This includes discussion about the implications and/or dependencies identified about the alternative and how those dependencies will be factored into the analysis.

4.5.2.4.6. Description of the analytical methodology to be used and must include the following: Measures of Effectiveness, Performance, and Suitability; decomposition of the gaps and key questions; traceability to measures used to establish minimum values in ICD (from CBA), cost work breakdown structure; methodology to determine alternatives ability to mitigate gaps; methodology to explore tradespace and description of what sensitivity analysis will be done to determine key parameters and Thresholds/Objectives for the draft CDD; methodology to construct cost capability comparisons; methodology for factoring in the dependencies identified for each alternative; and scenarios to represent the operational environment.

4.5.2.4.7. Identify responsible Intelligence Supportability, Fully Burdened Cost of Fuel and Energy OPRs.

4.5.2.5. Exit Criteria. The AFROC or D/CAPE approved AoA Study Plan completes the AoA Study Plan.

4.5.3. AoA Final Report. The AoA Final Report captures and presents the methodology and results of the analysis derived from the AoA Study Guidance and AoA Study Plan.

4.5.3.1. Review & Staffing Guidance. After the AoA Final Report has been developed, it is reviewed by AFMC/OAS with feedback provided to the study lead. When complete, the report is presented to the AFRRG and AFROC for review, approved by the CSAF (ACAT I) or VCSAF for release to D/CAPE, if required, for sufficiency review before the Defense Acquisition Board.

4.5.3.2. Approval Criteria. During the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.5.3.2.1. Identification of what enablers were addressed and how they align with those outlined at the MDD and in the AoA guidance.

4.5.3.2.2. Answers to the key questions identified in the AoA Study Guidance. These must be answered sufficiently for decision makers to support the upcoming decisions.

4.5.3.2.3. Identification of the performance, cost and risk drivers and how they were further explored in sensitivity analyses.

4.5.3.2.4. Illustration of the tradespace through life cycle cost/performance/risk analysis. These must clearly identify for the decision makers where the potential trade-offs exist, the operational risk associated with the performance and to what degree the capability gap(s) will be mitigated.

4.5.3.2.5. Identification of the KPPs and analytical evidence to support the thresholds and objectives (by exception, only use when necessary) are identified.

4.5.3.2.6. Identification of how sensitive each of the alternatives is to analysis assumptions and if they are sensitive to specific scenarios.

4.5.3.2.7. Identification of how sensitive each of the alternatives is to thresholds and objectives. This must include identifying what the associated life cycle cost drivers are for those values and how sensitive the cost is to those values.

4.5.3.2.8. Identification and scope of what additional information/analysis is needed before initiation of any acquisition activities; to include requesting a milestone decision.

4.5.3.2.9. Identification of how the cost of each alternative lines up with the affordability constraints identified at MDD and in the AoA Study Guidance (as applicable).

4.5.3.2.10. Identification of Measures of Suitability and how they are intended to be supported in the intended operational environment. Identify the alternatives that maximize human performance, minimize cost and provide safe and effective operations, maintenance, and support functions.

4.5.3.2.11. Identification and validation of a preferred alternative.

4.5.3.3. Exit Criteria. An AFROC/JROC reviewed AoA Final Report with a signed AFROCM/JROCM; that has been deemed sufficient by CAPE, (as required) completes the AoA process. A validated/sufficient AoA is required for a program to proceed to a MS A review (Defense Acquisition Board).

4.6. Key Performance Parameters (KPP) & Key System Attributes (KSA) Development Guidance. KPPs and KSAs are critical in the development of an effective military capability. Identified in the Draft CDD, CDDs and CPDs these parameters and attributes form the requirements foundation of the proposed new materiel solution. KPPs are core performance parameters that capture the essential functionality of the system and should represent the major cost drivers of the program. KPPs are so critical that a failure to meet a KPP threshold brings the

military utility of the system(s) into question and will result in a reevaluation of the program and potentially program cancellation. KSAs are attributes or characteristics considered essential to achieving the identified KPPs. The number of KPPs and KSAs should be kept to the minimum necessary to properly define essential system characteristics and performance. KPP and KSA values become more refined throughout the requirements and acquisition process as a better understanding of the achievable solutions are developed. KPPs and KSAs must be measurable, testable and quantifiable.

4.6.1. KPP/KSA development. The sponsor will comply with the JCIDS Manual when developing KPPs/KSAs. Sponsors must be able to justify why the performance parameter or system attribute was selected and be able to defend the threshold values using acceptable analytic rigor tied to the operational risk assessment. Risk, affordability and testability must also be considered when developing KPPs/KSAs. If threshold values do not equal objective values, the sponsor must justify how the objective value provides significant increases in operational utility.

4.6.2. Mandatory KPPs. The following KPPs are mandatory in requirements documents per the JCIDS Manual: the Force Protection KPP, the Survivability KPP, the Sustainment KPP, the Net-Ready KPP, the Training KPP and the Energy KPP. If one or more of these mandatory KPPs is not applicable, the sponsor will justify why it is not appropriate for their document and include the appropriate rationale in the subject document. Refer to the JCIDS Manual for additional guidance on Mandatory KPPs.

4.6.3. Mandatory KSAs. The following KSA is an AF mandatory KSA in AF requirements documents: the Flight Simulator KSA. Sponsors will clearly define the attributes of the Flight Simulator KSA in measurable, testable and quantifiable terms. The KSA will have a threshold (minimum acceptable value) to satisfy the operational requirements. The Flight Simulator KSA will be part of the overarching Training KPP. If this KSA is not applicable, the sponsor will justify why it is not appropriate for their document and include the appropriate rationale in the subject document.

4.6.4. KPP/KSA Changes. The following are the validation authorities for changes made to KPPs and KSAs within a previously validated JCIDS document. Validation authority is based on the JCIDS document's JSD.

4.6.4.1. JROC Interest Documents. The JROC will validate any changes to KPPs in JCIDS documents having a JSD of JROC Interest, unless the JROC has specifically delegated validation authority to the AF. The AFROC must validate any change to a KPP before JROC submittal. For all other changes, AF/A5R will determine the level of AF review.

4.6.4.2. JCB Interest Documents. The JCB will validate any changes to KPPs in JCIDS documents having a JSD of JCB Interest, unless the JCB has specifically delegated validation authority to the AF. The AFROC must validate any change to a KPP before JCB submittal. For all other changes, AF/A5R will determine the level of AF review.

4.6.4.3. Independent, Joint Information, and Joint Integration Documents. The AFROC will validate any changes to KPPs in JCIDS documents having a JSD of Independent, Joint Information, or Joint Integration. For all non-KPP changes, AF/A5R will determine the level of AF review and/or validation before AF approval.

4.7. Draft Capability Development Document (CDD). The Draft CDD is required for the Milestone A acquisition decision, shapes the requirements before the Technology Development Phase and informs the Technology Development Strategy (TDS), Requests for Proposals (RFP), and T&E Strategy. The draft CDD outlines the minimum essential information for technology development. Further refinement will be required for the final CDD.

4.7.1. The Draft CDD will contain the following as a minimum:

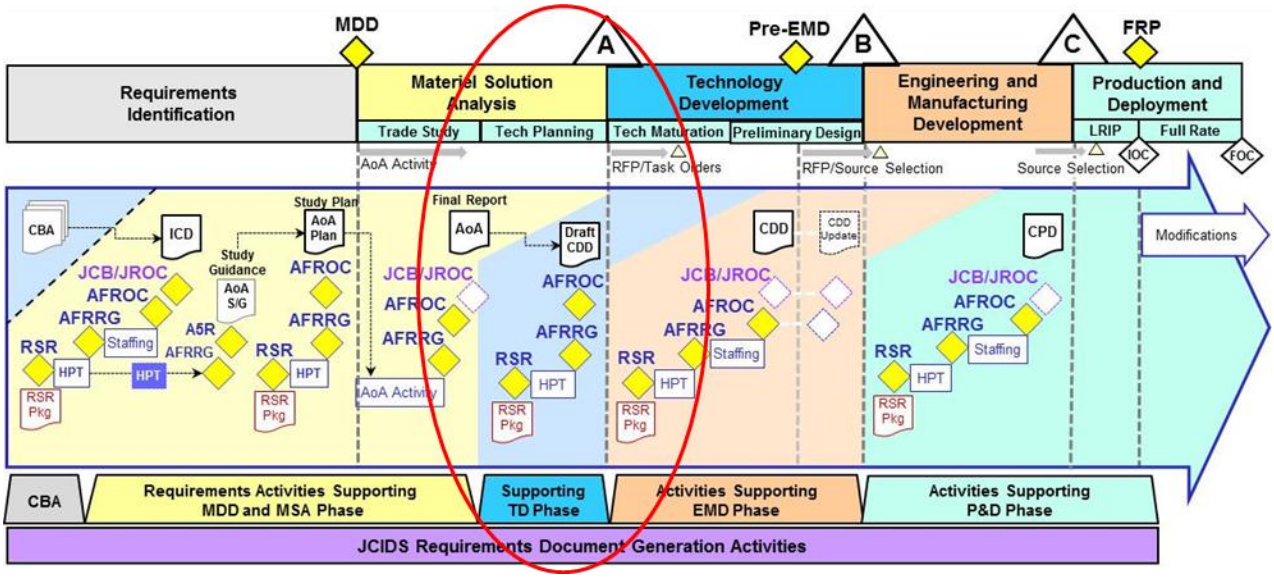
4.7.1.1. An Operational Context with focus on summary of the CONOPS (CDD Section 1)

4.7.1.2. A Program Summary with focus on the synchronization of System of Systems (SoS) efforts across other CDDs, CPDs, and Joint DCRs (CDD Section 4)

4.7.1.3. Development KPPs, KSAs and additional performance attributes with focus on the initial/draft performance attributes resulting from the AoA or other studies/analysis (CDD Section 5)

4.7.1.4. Other System Attributes with focus on attributes which require significant Technical Development Phase efforts (CDD section 6). The draft CDD outlines the minimum essential information for technology development and further refinement will be required for the final CDD***. NOTE***: Sections indicated are from the JCIDS guidance.

Figure 4.4. Requirements Overview – Draft CDD



4.7.2. Entry Criteria. A validated ICD and an AFROC approved AoA are required before submitting an RSR request for the Draft CDD or suitable analysis/studies of alternative in lieu of an AoA. In cases where an AF sponsor is using a Non-AF ICD or AoA the documents shall be approved by AF/A5R before initiating a Draft CDD. See the JCIDS Manual for additional guidance.

4.7.3. RSR Guidance. An RSR is required for all Draft CDDs. Refer to Paragraph 3.4. for additional RSR details.

4.7.4. HPT Guidance. An HPT is required for all AF sponsored Draft CDDs. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.7.5. Review & Staffing Guidance. After the Draft CDD is developed, it is reviewed by the AFRRG, validated by the AFROC, and approved by the CSAF (ACAT I) or VCSAF. The Draft CDD is not submitted to the JS for staffing or validation.

4.7.6. Approval Criteria. AFRRG and AFROC will review, as a minimum, the following items.

4.7.6.1. Mission area/portfolio overview to include: threat, current versus required capabilities, and operational risk assessment.

4.7.6.2. Program description - outline what gaps will be mitigated.

4.7.6.3. CONOPS, Operational View-1 (OV-1) and key linkages to other enabling capabilities and program dependencies.

4.7.6.4. Portfolio affordability review to include development, procurement and life cycle operations and sustainment costs (as available).

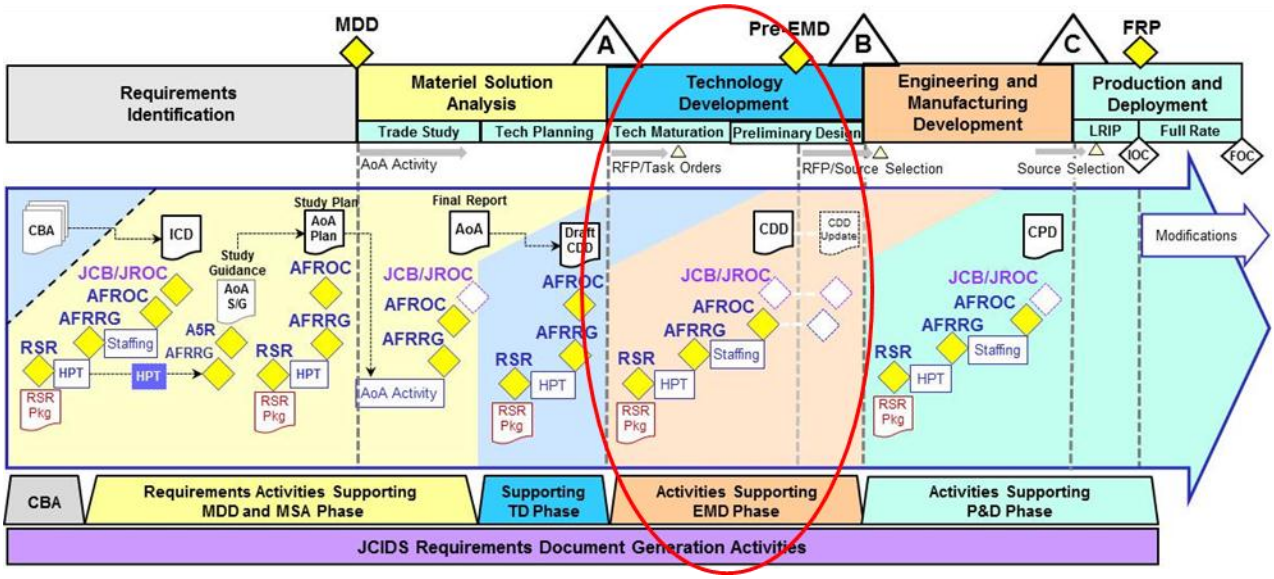
4.7.6.5. KPPs, KSAs with supporting methodology, rationale and analysis for threshold (T) and objective (O). Sponsor should be able to show the supporting cost / capability tradespace analysis used to refine the key operational requirements for major program cost drivers. If the threshold value is planned to be achieved following Full Rate Production or a full deployment, include a testable threshold value for the Full Rate Production or fielding decision.

4.7.6.6. Intelligence supportability requirements.

4.7.7. Exit Criteria. An AFROC validated Draft CDD completes the Draft CDD process. Technology Development Final RFPs will not be released until CSAF/VCSAF approval of the Draft CDD.

4.8. Capability Development Document (CDD). A CDD outlines an affordable increment(s) of militarily useful, logistically supportable, and technically mature capability. The CDD contains a carefully selected minimum set of prioritized requirements (e.g., KPPs, KSAs, and additional attributes), each of which drive cost, schedule, and risks. A validated CDD is required before the pre-Engineering and Manufacturing Development (EMD) review leading up to the MS B decision and identifies the operational KPPs, KSAs, and other attributes necessary to design and sustain the proposed system. It describes the increment and provides an outline of the overall acquisition program strategy.

Figure 4.5. Requirements Overview – CDD



4.8.1. Entry Criteria. An AFROC validated Draft CDD and Lead Command verification that Technology Development Phase activities are sufficiently matured to determine CDD requirements.

4.8.2. CDD Strategy Development. The CDD strategy lays the foundation for CDD development and supports the EMD phase for one or more increments. The preferred materiel solution is based on analysis and mature technologies demonstrated before MS B. The sponsor applies lessons learned during the previous phases, plus any other appropriate risk reduction activities such as experimentation, T&E, and capability/schedule tradeoffs.

4.8.3. RSR Guidance. An RSR is required for all AF sponsored CDDs. Refer to **Paragraph 3.4** for additional RSR guidance.

4.8.4. CDD Annex. A CDD annex is a separate document describing unique requirements for a variant of the core capability captured in the parent CDD. The annex is developed to add capability for a specific mission not covered within the CDD (for example, a special operations variant of a mobility aircraft). The CDD annex will identify all applicable mandatory KPPs. All sections of the annex unchanged from the original CDD display the words "No Change" in that section. The original CDD accompanies the annex (as reference only) during document review. AF/A5R determines the level of review and approval authority required. Additional information on CDD updates is located on the AF/A5R-P Requirements website.

4.8.5. HPT Guidance. An HPT is required for all AF sponsored CDDs. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.8.6. Review & Staffing Guidance. After the CDD is developed, it is reviewed by the AFRRG for approval to initiate initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, and approved by the CSAF (ACAT I) or VCSAF. The level of Joint review and validation beyond the AFROC is dependent upon the document's JSD. See **Table 5.1** for additional details.

4.8.7. Approval Criteria. The CDD will comply with the JCIDS Manual format and guidance. Additionally, during the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.8.7.1. Mission area/portfolio overview to include: threat, current versus required capabilities, and operational risk assessment.

4.8.7.2. Program description - outline what gaps will be mitigated.

4.8.7.3. CONOPS, OV-1 and key linkages to other enabling capabilities and program dependencies.

4.8.7.4. Portfolio affordability review to include development, procurement and life cycle operations and sustainment costs.

4.8.7.5. KPPs, KSAs with supporting methodology, rationale and analysis for threshold (T) and objective (O). Sponsor should be able to show the supporting cost versus capability tradespace analysis used to refine the key operational requirements for major program cost drivers. If the threshold value is not planned to be achieved until following Full Rate Production or full deployment, include an interim testable threshold value for IOT&E or initial fielding.

4.8.7.6. Unit procurement and operations & sustainment cost goals/caps.

4.8.7.7. Technology readiness levels and primary requirements cost drivers.

4.8.7.8. Life-cycle cost estimate (including level and fidelity) and current funding.

4.8.7.9. AF or JS Certifications/Endorsements.

4.8.7.10. Intelligence supportability requirements.

4.8.7.11. Schedule, quantities, IOC & FOC dates, program cost estimates.

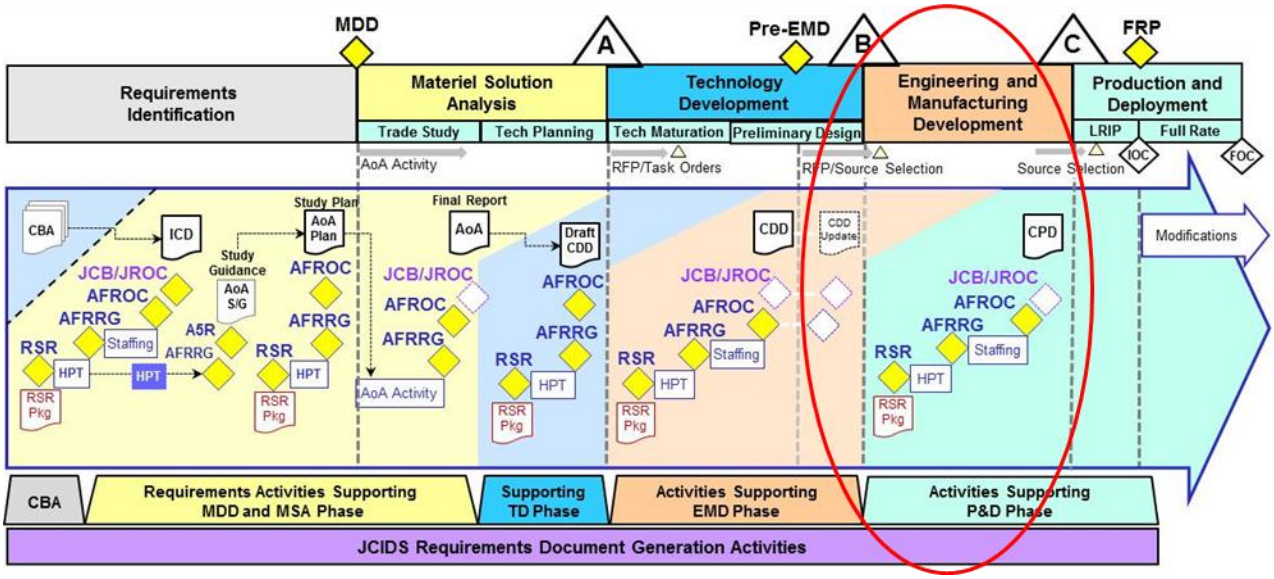
4.8.8. Exit Criteria. A validated CDD completes the CDD process.

4.8.9. CDD Update/Revalidation. A CDD update/revalidation is required if a change to KPP(s) is necessary after validation, the program experiences a 10% or greater change from the previously stated CDD cost data, a 10% or greater change in procurement quantities from the previously stated CDD procurement numbers, or a 12-month or greater schedule slip of IOC or FOC from the previously stated CDD IOC or FOC date. Before any CDD update, the sponsor must contact AF/A5R-P to determine the AF level of review and approval authority. Proposed changes to KPPs, KSAs, and/or additional attributes must be accompanied by a funding strategy and schedule that have been coordinated with the appropriate program office. As a minimum, all changes to KPPs (regardless of ACAT) must be validated at the AFROC and agreed upon by VCSAF. Additional information on CDD updates is located on the AF/A5R-P Requirements website and the JCIDS Manual. Many AF systems have been developed and procured pre-JCIDS using an Operational Requirements Document (ORD). Requirements changes to programs developed using an ORD will normally require a new JCIDS document.

4.9. Capability Production Document (CPD). The CPD outlines an affordable increment of militarily useful, logistically supportable, and technically mature capability that is ready for production. The CPD is a refined set of prioritized requirements and identifies the production

KPPs, KSAs and other attributes necessary to produce and sustain the system within cost, schedule and risk constraints. A validated and approved CPD (or revalidated CDD in lieu of CPD) is required before MS C.

Figure 4.6. Requirements Overview – CPD



4.9.1. Entry Criteria. A sponsor can initiate a CPD if they have an approved ICD and/or CDD and/or they have RSR approval to proceed with CPD development.

4.9.2. CPD Strategy Development. The requirements strategy lays the foundation for CPD development and supports the Production and Deployment phase for a single increment. The selected materiel solution is based on analysis and mature technologies demonstrated before MS C. The sponsor applies lessons learned during the previous phases plus any other appropriate risk reduction activities such as experimentation, T&E, and capability, cost and schedule tradeoffs.

4.9.3. RSR Guidance. An RSR is required for all CPDs. Refer to **Paragraph 3.4** for additional RSR guidance.

4.9.4. HPT Guidance. An HPT is required for all AF sponsored CPDs. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.9.5. Review & Staffing Guidance. After the CPD is developed, it is reviewed by the AFRRG for approval to initiate initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, and approved by the CSAF (ACAT I) or VCSAF. The level of Joint review and validation beyond the AFROC is dependent upon the document's JSD. See **Table 5.1** for additional details.

4.9.6. Approval Criteria. The CPD will comply with the JCIDS Manual format and guidance. Additionally, during the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.9.6.1. Mission area/portfolio overview to include: threat, current versus required capabilities, and operational risk assessment.

4.9.6.2. Program description - outline what gaps will be mitigated.

4.9.6.3. CONOPS, OV-1 and key linkages to other enabling capabilities and program dependencies.

4.9.6.4. Portfolio affordability review to include procurement and life cycle operations and sustainment costs.

4.9.6.5. KPPs, KSAs with supporting methodology, rationale and analysis for threshold (T) and objective (O). Sponsor should be able to show the supporting cost versus capability tradespace analysis used to refine the key operational requirements for major program cost drivers. If the threshold value is not planned to be achieved following Full Rate Production or a full deployment, include an interim testable threshold value for the LRIP or initial fielding.

4.9.6.6. Unit procurement and operations & sustainment cost goals/caps.

4.9.6.7. Technology and Manufacturing readiness levels and primary requirements cost drivers.

4.9.6.8. Life-cycle cost estimate (including level and fidelity) and current funding.

4.9.6.9. Status of JS Certifications/Endorsements.

4.9.6.10. Intelligence supportability requirements.

4.9.6.11. Schedule, quantities, IOC & FOC dates, program cost estimates.

4.9.6.12. Sponsor will outline any operational requirements and program changes from the CDD and describe the rationale that led to the change. Sponsors will also outline any impact to mission capability and program cost/schedule as a result of these changes.

4.9.7. Exit Criteria. A validated CPD completes the CPD process.

4.9.8. CDD in lieu of CPD. The CDD may be submitted in lieu of a CPD to support MS C acquisition decisions for each successive capability increment so long as there are no changes to KPPs, KSAs, other system attributes, and there are no adverse effects to previously validated capability requirements. When considering a CDD in lieu of CPD approach, the sponsor must contact AF/A5R-P and the AF/A5R Functional Division regarding its feasibility and receive approval to proceed. If approved, the CDD in lieu of CPD request will be forwarded to the AFRRG for review. In most cases, initial staffing is waived and with AFRRG concurrence the CDD in lieu of CPD is forwarded to the AFROC for validation, before submitting the document to the JS for review and validation (as required).

4.9.9. Changes to the CPD. Unlike the CDD, the CPD is always specific to a single increment and is normally not updated. However, should a CPD update be required, the sponsor must contact AF/A5R-P for review. Proposed changes to KPPs, KSAs, and/or additional attributes must be accompanied by a funding strategy and schedule that have been coordinated with the appropriate program office. As a minimum, all changes to KPPs (regardless of ACAT) must be validated at the AFROC and agreed upon by VCSAF. Document preparation, format, review, validation, approval, and archiving of subsequent updates are normally the same as the original CPD. Many AF systems have been developed and procured pre-JCIDS using an ORD. Significant requirements changes to programs developed using an ORD will normally require a new JCIDS document.

4.10. Information Systems. AF Information Systems are usually classified either as a Major Automated Information System (ACAT IA) or Automated Information System (ACAT III). In rare cases, a Major Automated Information System may also rise to meet the criteria and classification of a Major Defense Acquisition Program. For these situations, an IS-ICD will not be used. Defense Business Systems can fall into any of the above categories. A Defense Business System is an IS that is not part of a weapon system, or directly involved in the fulfillment of military or intelligence missions. Defense Business Systems are not subject to JCIDS and are not normally reviewed by the AFRRG or AFROC.

4.10.1. IT-Box Model. The IT Box Model, as described in the JCIDS manual, provides IS programs greater flexibility to incorporate evolving technologies and achieve faster responses from requirements validation processes by calling for fewer iterations of validating documents through the JCIDS process.

4.10.2. IS-ICD. IS-ICDs are used to document capability requirements and associated capability gaps where the intended solution approach involves research, development, and acquisition of applications system software, and the projected software development costs exceed $15M. It is not intended to be used for software embedded as a subset of a capability solution developed under other validated documents. All hardware associated with an IS-ICD is COTS/GOTS/NDI and hardware development is restricted to that necessary for system integration, system enhancements, and hardware refresh due to obsolescence. Follow-on IS-CDDs, CDDs and CPDs are not required for IS using an IS-ICD. An IS-ICD can be used for Automated Information Systems that exceed $15M in development costs and are not designated an MDAP.

4.10.2.1. Entry Criteria. A sponsor can initiate an IS-ICD for any IS provided it meets the requirements listed in **Paragraph 4.10.2**

4.10.2.2. IS-ICD Strategy Development. The IS-ICD requirements strategy establishes the path necessary to develop a quality IS-ICD that is capable of guiding future capability development activities. Continuous collaboration ensures the requirements strategy addresses required capabilities identified in the CBA and/or applicable Joint and AF concepts, capabilities-based planning documents and other pertinent guidance.

4.10.2.3. RSR Guidance. An Initial RSR is required for all AF sponsored IS-ICDs. Refer to **Paragraph 3.4**. for additional RSR guidance.

4.10.2.4. HPT Guidance. An HPT is required for all AF sponsored IS-ICDs. Refer to **Paragraph 3.5** for additional HPT guidance and membership criteria.

4.10.2.5. Review & Staffing Guidance. After the IS-ICD is developed, it is reviewed by the AFRRG for approval to initiate initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, and approved by the VCSAF. The level of Joint review and validation beyond the AFROC is dependent upon the document's JSD. See **Table 5.1** for additional details.

4.10.2.6. Approval Criteria. The IS-ICD will comply with the JCIDS Manual format and guidance. Additionally, during the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed:

4.10.2.6.1. A proposed/approved governance structure.

4.10.2.6.2. A methodology/rationale for the minimum values for each gap identified in the IS-ICD with reference to the key supporting analysis.

4.10.2.6.3. A review of costs, funding and schedule.

4.10.2.6.4. A CONOPS Summary that provides the operational context for understanding the need and the solution tradespace. This summary should include: desired operational outcomes, effects produced to achieve outcome, intelligence support needs, how capability complements Joint Forces and enabling capabilities, as required.

4.10.2.6.5. A description of the capability gap and the operational and/or force management risk of not filling the gap.

4.10.2.7. Exit Criteria. AFROC will validate the IS-ICD and document the validation decision with an AFROCM. The AFROCM and IS-ICD will be archived in the IRSS database. The level of review, validation, and approval beyond the AFROC is dependent upon the document's JSD (**Table 5.1**). The status of programs using IS-ICDs will normally be reviewed by the appropriate FCB every two years. The AFRRG and/or AFROC will review before FCB review.

4.10.2.8. IS-ICD Revalidation. An IS-ICD will require AFROC revalidation in the following situations:

4.10.2.8.1. If any new capability requirements need to be added beyond the scope of the previously validated IS-ICD.

4.10.2.8.2. If Major Automated Information System program development and integration or sustainment funding increases by 10% or more than what is identified in the IS-ICD.

4.10.3. IS-CDD. IS-CDDs have the same intent as an IS-ICD and are intended to be used in cases where a validated ICD or CDD wants to transition to the IT Box model. An IS-ICD is not required before initiating an IS-CDD. For purposes of this instruction an IS-CDD will be processed in the same manner as an IS-ICD. For additional information on the IS-CDD reference the JS Alternate Formats document to the JCIDS Manual.

4.11. Joint DOTmLPF-P Change Recommendation (Joint DCR). Joint DCRs are the JCIDS approved method for documenting and validating non-materiel solutions that are used as an alternative to, or complement of, a materiel solution. The use of a Joint DCR must have Joint impact. AF service specific changes do not use a Joint DCR; they are captured using the AF Change Recommendation process. Refer to **Paragraph 4.12** for additional guidance on AF DCR. Refer to the JCIDS Manual for additional guidance on Joint DCRs.

4.11.1. Entry Criteria. In most cases an ICD(s) will be the basis for a Joint DCR request. However, an ICD is not required before initiating a Joint DCR request. In these situations, the sponsor will follow the guidance as specified in the JCIDS Manual. These requests can be made during any phase of the acquisition process.

4.11.2. HPT Guidance. An HPT will be required for a Joint DCR. Contact AF/A5R-P for details on HPT membership and execution guidance. Refer to the AF/A5R-P website for additional information.

4.11.3. Review & Staffing Guidance. After the Joint DCR is developed, it is reviewed by the AFRRG for approval to initiate AF initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, approved by the VCSAF, and then is submitted for JS for validation.

4.11.4. Approval Criteria. The Joint DCR will comply with the JCIDS Manual format and guidance. During the AFRRG and AFROC reviews, as a minimum, the following items will be reviewed: identify the purpose of the change, identify the associated benefits of the change (e.g. cost or manpower savings), identify any potential road-blocks (e.g. funding, resource or time constraints), identify any gap(s) mitigated, identify projected implementation costs, demonstrate approval of impacted stakeholders to include the functional area responsible for oversight of the DOTmLPF-P specified area(s) and identify the Lead HAF organization/Lead Command/CFLI.

4.11.5. Exit Criteria. Joint DCR will be validated by the JROC and documented with a JROCM.

4.12. AF DOTmLPF-P Change Recommendation (AF DCR). AF DCRs document the AF unique non-materiel solutions identified in the CBA. This is also used when a unique AF non-materiel solution can be implemented independent of proposed materiel needs, or situations that complement a materiel solution. These change recommendations will be implemented in accordance with the appropriate processes for the type of non-materiel solution (e.g., training, doctrine, policy, manpower, facilities). AF change recommendations do not go to the Joint Staff. **Table 4.1** illustrates the POCs for AF Change Recommendations.

Table 4.1. AF DOTmLPF-P Process Owners

DOTmLPF-P Area	Functional Process Owner
AF Doctrine	Air University
AF Organizations	Air Staff – A/1
AF Training	HQ AETC
AF Materiel	SAF/AQ
AF Leadership & Education	HQ AETC / Air University
AF Personnel	Air Staff – A/1
AF Facilities	Air Staff – A4/7
AF Policy	Various POCs – Topic Specific

4.12.1. Entry Criteria. An AF Change Recommendation may be submitted at any time during the requirements process, when a non-materiel solution(s) has been identified as a more efficient or more effective means to close a capability gap. Typically, CBA results will be used to identify change recommendations to DOTmLPF-P.

4.12.2. HPT Guidance. An HPT will be required for an AF DCR. Contact AF/A5R-P for details on HPT membership and execution guidance. Refer to the AF/A5R-P website for additional information.

4.12.3. Review & Staffing Guidance. After the AF DCR is developed, it is reviewed by AFRRG for approval to initiate AF initial staffing (Reference **Paragraph 5.3**), validated by the AFROC, and approved by the VCSAF.

4.12.4. Approval Criteria. The following criteria will be required for approval: the sponsor will identify the purpose of the change, identify the associated benefits of the change (e.g.

cost or manpower savings), identify any potential road-blocks (e.g. funding, resource or time constraints) identify any gap(s) mitigated, identify projected implementation costs, and demonstrate approval of impacted stakeholders to include the functional area responsible for oversight of the DOTmLPF-P specified area(s).

4.12.5. Exit Criteria. AFROC approval will be documented with an AFROCM and archived in the IRSS database.

Chapter 5

DOCUMENT STAFFING & VALIDATION

5.1. Purpose. This chapter provides a description of the JCIDS staffing process for AF and Non-AF documents. It identifies the staffing tools used by the AF to staff JCIDS documents. It provides guidance on the Joint Staffing Designation, Joint Staff endorsements and certifications, document coordination & comment resolution, and document validation and approval.

5.2. (AF) Information & Resource Support System (IRSS). IRSS is a web-based tool on the SIPRNet AF Portal designed to facilitate processing and tasking of AF and non-AF sponsored requirements documents. IRSS is also used for archiving AF sponsored JCIDS documents and all associated documentation (e.g. AFROCMs, AFRRGMs). A listing of applicable agencies and offices to be included in all AF reviews is located within IRSS. Sponsors (via MAJCOM/Agency POCs) will submit documents and taskings via IRSS to AF/A5R-P for HAF Review, Joint Review, AFROC/JROC validation, and to track the history of document development. AF/A5R-P will forward documents and tasking to appropriate Joint Staff and HAF offices. AF/A5R-P will archive all AF sponsored operational capability requirements documents and AoA/analysis results (up to Secret), regardless of ACAT or JSD. Detailed information on IRSS procedures is located on the AF/A5R-P Requirements website.

5.3. Staffing Process for AF Sponsored Documents. Staffing begins when a sponsor submits a requirements document for AFRRG review. Following AFRRG approval, AF/A5R-P will initiate a 21 day AF review of the document via IRSS. Comments will be provided in accordance with **Paragraph 5.6** and resolved in accordance with **Paragraph 5.7**. Concurrent with AF initial staffing, AF/A5R-P will submit the document(s) to the JS/J8 Gatekeeper for initial Joint review as described in the JCIDS Manual. The Deputy Director for Requirements (DDR), JS/J8 serves as the JS/J8 Gatekeeper. The JS/J8 Gatekeeper will designate a lead and any supporting FCBs with responsibility for the document and formally assign a JSD to the document. JSD designation sets the staffing path and timeline for the document, and identifies the validation authority. Regardless of potential ACAT or validation authority, all AF sponsored ICDs, IS-ICDs, CDDs, IS-CDDs, CPDs, and Joint DCRs will be submitted to the Joint Staff for evaluation of joint equity and to determine the appropriate staffing process and validation authority. The five JSDs are listed below:

5.3.1. JROC Interest. Applied to all documents describing ACAT I/IA programs, Joint DCRs, and those that have a potentially significant impact on interoperability (interagency, allied/partner nation, coalition). Following resolution of comments these documents are presented to the AFROC for AF validation. After AFROC validation the documents are submitted for applicable endorsements and certifications and for FCB and JCB review and JROC approval. The JROC is the validation authority for JROC Interest documents.

5.3.2. JCB Interest. Applied to all documents describing ACAT II and below programs that have a potentially significant impact on interoperability (interagency, allied/partner nation, coalition). JCB Interest documents go through the same review process as JROC Interest documents, but receive JCB approval instead of JROC approval.

5.3.3. Joint Integration. Applied to all documents describing ACAT II and below programs, which require one or more joint endorsements or certifications, but are below the level of

JCB interest. All certifications for Joint Integration documents must be obtained before AFROC review and validation. AF/A5R-P will submit Joint Integration documents to the JS/Gatekeeper for JS endorsements and certifications. The AFROC is the validation authority for Joint Integration documents.

5.3.4. Joint Information. Applied to all documents describing ACAT II and below programs, which do not need Joint Staff endorsements, and are below the level of JCB Interest. The AFROC is the validation authority for Joint Information documents.

5.3.5. Independent. Beyond JS Gatekeeper review and JSD assignment, Independent documents do not undergo Joint review. These documents are validated by the AFROC.

5.4. Endorsements/Certifications. Depending on the JSD level, requirements documents sponsors may need to secure additional endorsements/certifications during the staffing process. Reference the JCIDS Manual for additional guidance on the endorsement/certification process.

5.5. Staffing of Non-AF-Sponsored Documents. The JS/J8 forwards all operational capability requirements documents with a JSD of JROC Interest, JCB Interest, Joint Integration, or Joint Information to AF/A5R-P for AF review. After coordination with the AF FCB Lead to determine any additional staffing distribution, AF/A5R-P forwards the document via IRSS to all HAF and MAJCOM mandatory addressees listed on the AF Staffing Distribution list for 15 day initial staffing review. AF organizations will provide GO endorsement for any critical comments. The AF FCB Lead is responsible for reviewing AF comments, ascertaining the need for GO/SES sign out (i.e. critical comments) and coordinating AF position.

5.6. Document Coordination and Commenting. Lack of a response from any AF agency tasked to review an operational capability requirements document by the designated suspense date is considered concurrence (tasking agencies are not required to accept late comments). Document reviewers will submit comments and identify the significance of the comment as "critical," "substantive," or "administrative." Convincing support for critical and substantive comments will be provided in the comment matrix via IRSS.

5.6.1. Critical. A critical comment indicates non-concurrence with the document until the comment is satisfactorily resolved. Critical comments should be restricted to critical issues regarding KPPs and KSAs, concepts of operations, violation of policies and directives, and other fundamental issues concerning cost, schedule or performance that would bring into question the rationale for the document to be approved. Any organization submitting critical comments must have GO/SES endorsement before submission. Documents with unresolved critical comments will not go to the AFROC unless approved by AF/A5R.

5.6.2. Substantive. A substantive comment addresses a section in the document that appears to be, or is potentially unnecessary, incorrect, misleading, confusing, or inconsistent with other sections. Substantive comments do not indicate non-concurrence, but the document sponsor must consider all substantive comments for incorporation.

5.6.3. Administrative. An administrative comment addresses typographical, format, or grammatical errors. The sponsor should consider all administrative comments.

5.7. AF Sponsor Comment Resolution. The AF/A5R-P will consolidate all comments into two CRMs; one CRM contains comments from AF review, and the second CRM contains comments from the Joint review. Sponsors will use the CRMs to document actions taken in

response to each comment. The document sponsor must show the rationale for not fully accepting a critical or substantive comment. The sponsor resolves all critical comments before submitting the document for AFROC review, unless otherwise approved by AF/A5R.

5.7.1. Comment Resolution Timing. Per JS/J8 direction, the sponsor has 30 calendar days to adjudicate comments.

5.7.2. Resolving Critical Comments. Resolve comments at the lowest possible level. The method, point of contact (POC), and date of resolution must be documented in the CRM (e.g., "via telephone with Maj Smith on [xx] date").

5.7.3. Adjudication Procedures. If a critical comment cannot be resolved, the issue is elevated as required to achieve final resolution. The intent of the adjudication process is to prevent a single office or individual from holding up the document indefinitely. If the document sponsor cannot adjudicate the comment with the comment originator, the issue is raised to the O-6 level for adjudication. If the comment cannot be resolved at the O-6 level, the document sponsor requests AF/A5R Division Chief support in adjudicating the comment. AF/A5R Division Chief may present the issue to AF/A5R (as necessary). In rare instances, the comment may remain open and be adjudicated at the AFROC. For adjudication issues with other Services or the Joint Staff, the AF/A5R Functional SME assists the document sponsor in working the issue with the applicable FCB Working Groups and FCBs. In rare cases, unresolved issues may be submitted to the FCB, JCB, or JROC for resolution.

5.8. Document Validation/Approval. The MAJCOM/Agency POC submits the document for AFROC validation, accompanied by a transmittal letter signed by the MAJCOM/DRU/FOA Commander (CC) for potential ACAT I documents, Vice Commander (CV) for potential ACAT II documents, or Director of Requirements for potential ACAT III documents, signifying their approval, as illustrated in **Table 5.1**. Following initial staffing and comment resolution, the document is reviewed and validated by the AFROC. AFROC decisions and recommendations are documented in an AFROCM; signed by the AFROC Chairman. The document is approved by the CSAF or VCSAF and is released to the Joint Staff for further Gatekeeper review and JS staffing (FCB, JCB, and JROC, if applicable). The validation/approval phase is the formal review process of a JCIDS requirements document to confirm capability needs and operational requirements. The validation/approval authority for an AF requirements document is based on its JSD (JROC Interest, JCB Interest, Joint Integration, Joint Information or Independent), as illustrated in **Table 5.1**

Table 5.1. Validation & Approval Authority

	JROC Interest			JCB Interest		Joint Integration, Joint Information, & Independent	
	ACAT I	ACAT II	ACAT III	ACAT II	ACAT III	ACAT II	ACAT III
Lead Command Approval	CC	CV	Director of Requirements	CV	Director of Requirements	CV	Director of Requirements
AF Validation	AFROC	AFROC	AFROC	AFROC	AFROC	AFROC	AFROC
AF Approval	CSAF	VCSAF	VCSAF	VCSAF	VCSAF	VCSAF	VCSAF
JS Validation Authority	JROC	JROC	JROC	JCB	JCB	N/A	N/A

5.9. Document Completion. After document approval, the document sponsor will provide a copy of the final version to AF/A5R-P. AF/A5R-P is responsible for posting a final signed document and all supporting material into IRSS. AF/A5R also forwards a copy to the JS/J8 Gatekeeper.

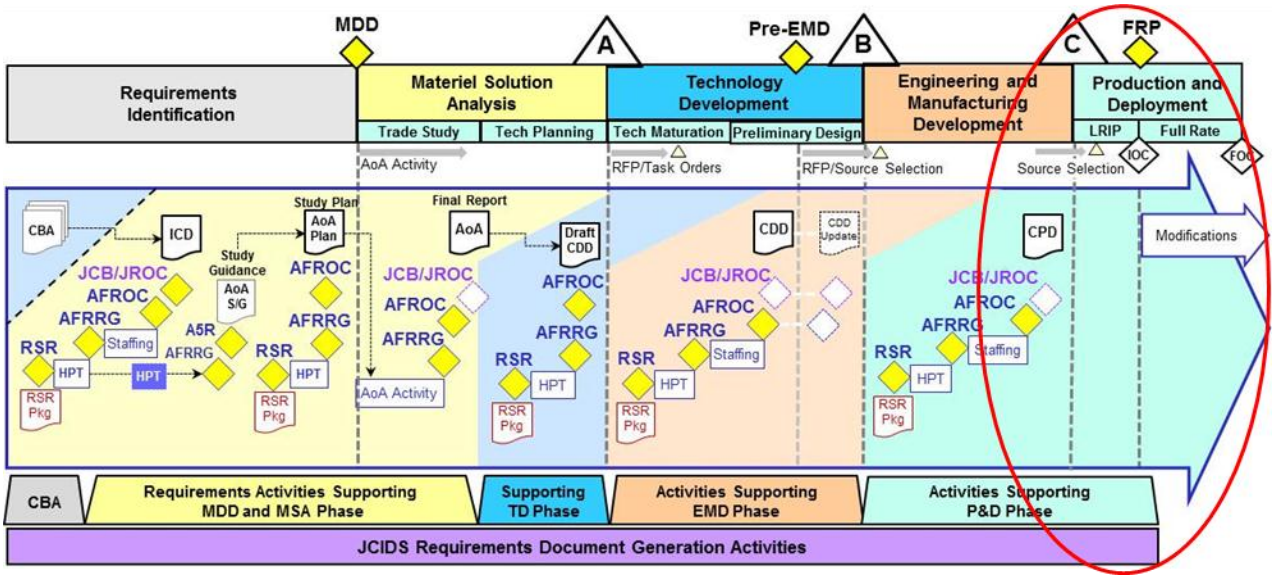
Chapter 6

GUIDANCE FOR MODIFICATIONS

6.1. Purpose. This chapter provides a description of the operational capability requirements modifications process. It outlines the requirements activities required for modifications to in-production systems fielded and managed by the AF. In-production systems are those delivered to the government via a DD Form 250, *Material Inspection and Receiving Report*, or in the case of software are systems that are simply approved for full deployment. For additional guidance on modifications reference AFI 63-131.

6.1.1. **(Added-AFSPC)** Refer to AFI 63-131_AFSPCSUP for specific HQ AFSPC modification management processes.

Figure 6.1. Requirements Overview – Modifications



6.2. Modifications. A modification is an alteration to a configuration item (CI) that, as a minimum, changes its form, fit, function, or interface. Modifications may be installed as permanent or temporary alterations, and may be needed to add a new temporary or permanent capability to a fielded system or to sustain existing capability. Descriptions of each are listed below.

6.2.1. Temporary Modifications. Temporary modifications change the configuration of an item to enable short-term operational mission accomplishment, or to conduct test and evaluation (T&E) of new and modified equipment. When the modification is no longer needed, as documented in the AF Form 1067, it is removed and the CI is returned to its permanent configuration.

6.2.2. Permanent Modifications. Permanent modifications change the configuration of an asset/software/firmware for operational effectiveness, suitability, survivability, service life extension and/or reduce ownership costs of a fielded weapon system, subsystem, or item.

6.2.3. Sustainment Modifications. Sustainment modifications are those performed to maintain existing capability and must show traceability to existing, validated requirements (ORD, CDD, CPD, etc.). Modifications that enhance or add performance do not fall in this category, are considered "new" requirements and require validation and approval by the appropriate authority.

6.3. AF Form 1067 Usage and Validation/Approval. The AF Form 1067 is the document normally used to initiate temporary modifications and permanent sustainment modifications for fielded systems and equipment. An AF Form 1067 can also be used to document the submission, review and approval of requirements for permanent capability modifications estimated to cost no more than ten percent of the minimum threshold dollar values for ACAT II programs.

6.3.1. AF Form 1067 Approval (All Types). The Lead Command Director of Requirements and Program Manager for a system may approve all AF Form 1067s below $50M (total program cost: RDT&E + procurement in current year dollars). AF Form 1067s greater than $50M (total program cost: RDT&E + procurement in current year dollars) require AF/A5R approval after appropriate staffing across HAF. AF Form 1067s greater than $100M (total program cost: RDT&E + procurement in current year dollars) require AFROC validation and VCSAF approval as appropriate. See **Table 6.1** for additional guidance.

6.3.2. Permanent Modifications (New Capability). Modifications that introduce new capability and are estimated to cost no more than ten percent of the minimum threshold dollar values for ACAT II programs, as described in DoDI 5000.02, may use an AF Form 1067. Sponsors will include a Table of Performance Parameters/Attributes (KPP, KSA, other or attributes) with minimum Threshold/Objective values similar to the format for a CDD/CPD. If estimated expenditures exceed ten percent of ACAT II minimum threshold dollar values, an AF Form 1067 may not be used for modifications that introduce new capability; in this case, the sponsor will prepare a new JCIDS requirement document for review and validation. See **Table 6.1** for additional guidance.

6.3.2.1. **(Added-AFSPC) NOTE:** Modifications are considered "Capability modifications" only if the intent of the modification is to change the validated requirements (CDD, ORD, etc.) for the weapon system. An incidental increase in performance due to modernized equipment/components used to sustain the system is not a capability modification if the basic operational requirement has not changed.

Table 6.1. Decision Logic Table for Modifications

<table>
<tr><th>If total cost estimate (Proc & RDT&E) is:</th><th>Validation & Approval Authority</th><th>Documentation Required (as determined by Validation Authority, see Notes)</th></tr>
<tr><td>Less than $50M</td><td>Lead Command Director of Requirements & PM</td><td rowspan="3">IF Validated as Permanent “Sustainment” or Temporary (T-1, T-2) Modification
THEN use AF FORM 1067

IF Validated as Permanent mod for “New Capability” AND less than 10% of ACAT II minimums
(RDT&E and Proc per DoDI 5000.02)
THEN use AF FORM 1067
And include a KPP/KSA Table

Otherwise, submit a new JCIDS Document(s) for appropriate validation</td></tr>
<tr><td>Between $50-100M</td><td>AF/A5R</td></tr>
<tr><td>More than $100M</td><td>AFROC and VCSAF</td></tr>
</table>

6.3.3. **(Added-AFSPC)** The following procedures, in concert with those specified in AFI 63-131 and AFSPC Supplement, apply for review and approval of AF Form 1067 within HQ AFSPC. **NOTE:** This process is for review and approval only; it does not alter the basic process for generating the modification proposal or the technical analysis required IAW AFI 63-131.

6.3.3.1. **(Added-AFSPC)** HQ AFSPC/A4S notifies HQ AFSPC/A5X of scheduled CRB.HQ AFSPC/A4C notifies HQ AFSPC/A5J of scheduled VCB (for cyber-related modifications). and the HQ AFSPC/A4 Division forwards the AF Form1067(s) for review. HQ AFSPC/A5X/A5J ensures SMEs from the pertinent HQ AFSPC/A5 Division will attend to address the modification subject matter.

6.3.3.2. **(Added-AFSPC)** HQ AFSPC/A5X (CRB)/A5J (VCB) and Division SME(s) will attend CRB/VCB.

6.3.3.3. **(Added-AFSPC)** When Part IV, SINGLE MANAGER REVIEW AND APPROVAL, is complete, and after CRB/VCB review, A5 Division SME will forward to the appropriate A5 Division Chief for approval if expected expenditure consists of RDT&E and procurement (3600, 3080) appropriations. **NOTE:** This applies to all (T-1, T-2, permanent) modifications. If funding is 3400 (O&M) only, approval is as directed by the CRB/VCB.

6.3.3.3.1. **(Added-AFSPC)** Part V, LEAD COMMAND CERTIFICATION/APPROVAL, is delegated to the pertinent A5 Division Chief if the total expected expenditure of RDT&E and procurement appropriations is < $50M.

6.3.3.3.2. **(Added-AFSPC)** If expected expenditure of RDT&E and procurement exceeds $50M, Division Chief will forward AF Form 1067 to A5 for endorsement to forward to HAF/A5R IAW this AFI.

6.3.3.3.3. **(Added-AFSPC)** HQ AFSPC/A5 will indicate Lead Command recommendation in a memo to HAF/A5R.

6.3.3.3.4. **(Added-AFSPC)** HQ AFSPC/A5 Division Chief will provide briefing materials and presentation for AFRRG consideration with HQ AFSPC/A4 Division Chief support.

6.3.3.3.5. **(Added-AFSPC)** HQ AFSPC/A5 Division Chief will prepare A5 for in-person AFROC presentation; if AFROC is via VTC, the Division Chief will present briefing for AFROC consideration.

6.4. Net-Ready Key Performance Parameters (NR KPP). The JS/J6 DDC4 must approve permanent modifications that require interoperability and supportability certification (normally addressed as the NR KPP in operational capability documents). For modifications that meet AF Form 1067 criteria, the sponsor prepares an AF Form 1067 while the program manager, with the sponsor's support, updates the system's information support plan (ISP). The sponsor submits the updated ISP to JS/J6 to obtain certification. The modification may not be installed until the interoperability and supportability certification is granted by JS/J6.

6.4.1. **(Added-AFSPC)** HQ AFSPC/A5 RL, with A3 Weapon System Lead advocacy, prepares an AF Form 1067 or legacy systems that require NR-KPP and Interoperability/Supportability Certifications. The AF Form 1067 shall not obtain Part III signature until the ISP is approved. The ISP review and approval process is as follows. HQ AFSPC/A5 and HQ AFSPC/A3 (as appropriate) will assist the PM in updating or initiating the system's Information Support Plan (ISP) using the GIG Technical Guidance – Federation (GTG-F) Enhanced ISP (EISP) Wizard. HQ AFSPC/A5 and the Program Manager shall create or update required DoDAF integrated architecture views and the NR-KPP table derived from the integrated architecture views IAW the JCIDS Manual Guide for the Net-Ready KPP. All architecture products must be reviewed by the HQ AFSPC Architecture Synchronization Forum (ASF) and approved by the HQ AFSPC/A5 as Chief Architect. The RL and PM shall coordinate as early as possible with the ASF to ensure timely review is attained. Upon Chief Architect approval, the HQ AFSPC/A5 Sponsor will assist the Program Manager to insert/update the system's NR-KPP table and the approved DoD AF integrated architecture views into the ISP. It is the responsibility of the PM to input the ISP into the GTG-F system to initiate the formal/final ISP review process within GTG-F. HQ AFSPC/A6X, as lead assessor for AFSPC, will task AFSPC directorates and AFNIC to review the ISP IAW ISP review process in DoDI 4630.08, *Procedures for Interoperability and Supportability of Information Technology and National Security Systems*. Once review is complete, HQ AFSPC/A6XR provides the consolidated AFSPC response to the ISP within the GTG-F. Simultaneously, HQ AFSPC/A5X will initiate AF approval and certification IAW AFI 33-401. The AF Form 1067 will include a URL location of the new or updated ISP; the ISP (not the AF Form 1067) undergoes review by Joint Staff/J6. The NR-KPP (includes Interoperability & Supportability) capability modification to the legacy system may not be installed (post CDR activity) until the NR-KPP and interoperability and supportability certifications are granted.

Chapter 7

URGENT / EMERGENT OPERATIONAL NEEDS

7.1. Purpose. This chapter provides a description of the Urgent Operational Needs (UONs)/Joint Urgent Operational Needs (JUONs)/Joint Emergent Operational Needs (JEONs) process. See the JCIDS Manual for additional information on UONs/JUONs/JEONs.

7.2. Specific UON/JUON/JEON Organizational Responsibilities. All organizations listed below will identify an OPR for processing and tracking all AF UONs/JUONs/JEONs related to their organization. In addition, they have the following responsibilities:

7.2.1. AF/A5R is the single HAF POC for operational capability requirements activities associated with this process.

7.2.2. SAF/AQX is the single HAF POC for acquisition activities associated with this process. This includes determination of an appropriate acquisition strategy in accordance with the Quick Reaction Capability (QRC) process as described in AFI 63-114.

7.2.3. Air Combat Command (ACC) is the Lead Command for UONs/JUONs/JEONs associated with air combat capabilities, integrated ISR capabilities, combat search and rescue, command and control, and combat support capabilities.

7.2.4. Air Mobility Command (AMC) is the Lead Command for UONs/JUONs/JEONs associated with air mobility capabilities.

7.2.5. Air Force Special Operations Command (AFSOC) is Lead Command for UONs/JUONs/JEONs associated with special operations capabilities.

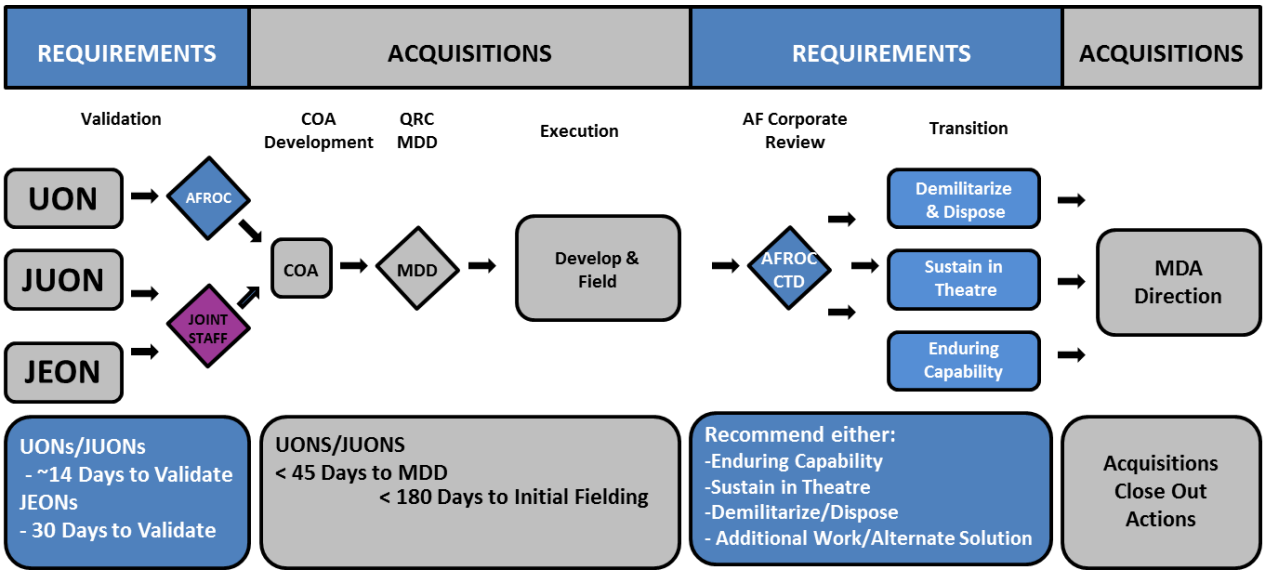
7.2.6. Air Force Space Command (AFSPC) is Lead Command for UONs/JUONs/JEONs associated with space and cyberspace-related capabilities.

7.2.7. Air Force Global Strike Command (AFGSC) is the Lead Command for UONs/JUONs/JEONs/QRCs associated with nuclear and global strike capabilities.

7.2.8. Implementing commands, AFSPC and AFMC, will assist the Lead Command in identifying potential solutions, developing the acquisition strategy, and test and evaluation strategy.

7.3. AFROC Responsibilities for Urgent/Emergent Needs. The AFROC has two decision-making responsibilities for Urgent/Emergent Needs in the Quick Reaction Capability process. First, the AFROC is responsible for validating all UON requests. Second, the AFROC is responsible for providing an AF Corporate Review, through a Capabilities Transition Decision (CTD), for all UON/JUON/JEON fielded capabilities. See **Figure 7.1** for additional information on Urgent/Emergent Needs.

Figure 7.1. Urgent/Emergent Needs in the Quick Reaction Capability Process



7.4. Urgent Operational Needs (UONs). UONs identify Service specific needs during a current conflict or crisis situation that if not satisfied in an expedited manner, will result in unacceptable loss of life or critical mission failure. The goal of the UON process is to deliver fielded capability within 180 days of a validated request. The UON is not intended to be used for acquisition development activities, requesting non-materiel solutions or force deployments; however, it may identify a non-materiel approach as the most effective solution.

7.4.1. UON Submission Criteria. Organizations submitting or endorsing a UON must ensure the following criteria are met:

7.4.1.1. The urgent need has identified a capability gap or shortfall that will result in imminent loss of life and/or result in critical mission failure during an ongoing/current conflict or crisis situation.

7.4.1.2. The urgent need solution should be capable of being fielded within a 180 days of a validated request. A UON request will not be held up in cases where this is unable to be determined at the time of validation.

7.4.1.3. The UON origination and submission must come from an AF Component Commander.

7.4.2. UON Submission Process.

7.4.2.1. UON Format. A recommended format for submission of a UON is provided at Attachment 2. The warfighter is encouraged to provide as much information as possible.

7.4.2.2. Early Notification. To facilitate mutual understanding of the need and expeditious identification of a satisfactory solution, warfighters are encouraged to contact Lead Command, AF/A5R and SAF/AQX as early as possible if a UON submission is being considered.

7.4.2.3. UON Validation Recommendation. Initial UON notification will include AF/A5R-P, SAF/AQX and the Lead Command. Upon notification of a UON AF/A5R-P,

SAF/AQX and the Lead Command will review the UON request to ensure the right MAJCOM has been identified as the Lead Command. The Lead Command will begin developing a validation recommendation for AFROC validation.

7.4.2.3.1. The Lead Command will consider the basic solution options, ROM costs, intelligence support needs and schedule and develop a proposed COA (to include options from the special programs community). Additionally, the Lead Command will evaluate impacts on the platform(s), impacts on operational mission(s), and any impacts on modernization program(s). Based on this information, the AFROC will either validate or reject the UON with a goal 14-21 days of receipt of the UON request, normally via e-AFROC.

7.4.2.3.2. **(Added-AFSPC)** HQ AFSPC/A5X is the entry point for UONs to HQ AFSPC. When a UON is received, HQ AFSPC/A5X will convene an AO-level working group (to include the prospective program office) to assign an OPR and consider the UON for an initial validation recommendation. HQ AFSPC/A5X will then:

7.4.2.3.2.1. **(Added-AFSPC)** Schedule and facilitate a short notice meeting with HQ AFSPC/A5 to relay the initial validation recommendation.

7.4.2.3.2.2. **(Added-AFSPC)** Convene an out-of cycle Requirements Board to approve/disapprove the recommendation.

7.4.2.3.2.3. **(Added-AFSPC)** Forward the UON and HQ AFSPC recommendation for validation to AF/A5R-P and SAF/AQX (if not previously forwarded by the submitter).

7.4.2.3.2.4. **(Added-AFSPC)** Facilitate processing of the UON, along with the designated OPR through the AFROC process described below.

7.4.2.3.2.5. **(Added-AFSPC)** Gather and provide monthly AFSPC UON status to the AFROC.

7.4.3. UON Validation. The Lead Command is responsible for developing a validation position for presentation to the AFROC. Validation is based on positively meeting the following three criteria: 1) requested need is in support of an ongoing/current conflict or crisis situation 2) failure to meet the need will result in imminent loss of life or critical mission failure 3) an acceptable solution can be fielded within 2 years of validation. A "Negative" response to any of these criteria will result in a MAJCOM recommendation to not validate the UON request.

7.4.3.1. If the AFROC validates the UON and the VCSAF approves, the UON is transitioned to SAF/AQX for assignment to a SAF/AQ Capability Directorate. A Milestone Decision Authority (MDA) will be appointed by the Capability Director. The Lead Command will load the UON request into the IRSS database.

7.4.3.1.1. Once the Lead Command has finalized the COA and the MDA has approved the COA, the COA selection will be reviewed by AF/A5R as a final requirements evaluation review before development and fielding.

7.4.3.2. If the request is not validated, the Lead Command will engage with the sponsor to see if descoping the requirements is a possibility. If this is not an option, the VCSAF

will sign and send the AFROCM back to the AF component requesting the UON stating the reason why the UON was disapproved.

7.4.4. UON Revalidation. UON validations expire two years after the date of validation. If initial fielding has not been initiated at two years from the validation date, the Lead Command will determine from the requestor if the desired capability is still needed.

7.4.4.1. If the capability is still an Urgent Need, the Lead Command will request the AFROC to revalidate the UON. AF/A5R-P will notify SAF/AQX workflow of the revalidation decision. Courtesy copies will be provided to AFMC/A5C workflow and AFSPC/A5X workflow.

7.4.4.2. If the capability is no longer needed, the Lead Command will recommend termination of the UON to the AFROC.

7.5. Joint Urgent Operational Needs (JUONs). A JUON is an urgent need identified by a warfighting commander that requires synchronization across multiple Service/agency providers to ensure complete and timely combat capability is provided to the Joint warfighter. JUONs are submitted to the Joint Staff J-8 under the guidance of the JCIDS Manual. JUONs will be processed in the same manner as UONs with the exception of staffing and validation.

7.5.1. JUON Staffing. The AF FCB Lead is the AF interface with the Joint Staff on JUON issues and initiates JUON staffing actions.

7.5.1.1. When a JUON has been submitted for Joint Staff triage, the AF FCB Lead will notify AF/A5R-P, appropriate AF/A5R Division, SAF/AQX and other AF stakeholders as appropriate.

7.5.1.2. AF FCB Lead consolidates the AF response to Joint Staff triage questions, determines AF equity, and drafts proposed AF position for AF/A5R(J).

7.5.1.3. AF/A5R(J), or designated representative, transmits approved AF JUON position to the appropriate JS FCB Chair.

7.5.2. JUON Validation. JS J-8/DDR is the validation authority for JUONs.

7.5.2.1. AF FCB Lead notifies AF/A5R-P, appropriate AF/A5R Division, and AF/A5R(J) of Joint Staff validation decision. If JUON will potentially be assigned to AF, AF/A5R-P will notify SAF/AQX. If not assigned to AF, no further action required.

7.5.2.2. If JUON is assigned to the AF, SAF/AQX, in coordination with AF/A5R, will assign the JUON to a Lead Command. The Lead Command, in coordination with CCMD, AF Component, Implementing Command, AF/A5R, SAF/AQX and HAF Staff will develop a proposed COA to best address the JUON requirement within available cost, schedule, performance and quantities. The Lead Command should ensure that the special programs community is part of this coordination effort so that all possible COAs are evaluated.

7.5.2.3. AF/A5R Division POC will stay connected to Joint Rapid Acquisition Cell (JRAC), lead command, and SAF/AQX as possible COAs are developed. A JUON description and status will be added to IRSS.

7.5.3. JUON Termination Procedures.

7.5.3.1. Once the JUON solution has been fielded and the Military Utility Assessment (MUA) has been accomplished, the Lead Command will send a JUON CTD request to AF/A5R-P. See **Paragraph 7.7** for additional information on CTD briefs.

7.6. Joint Emergent Operational Needs (JEONs). A JEON is an emergent need driven by anticipated contingency operations that require synchronization across multiple Service/agencies. Development and fielding timelines are longer than UONs/JUONs with expected initial fielding occurring up to five years after validation. JEONs are submitted to the Joint Staff J-8 under the guidance of the JCIDS Manual. AF review of JEONs will be processed in the same manner as JUONs. The AF FCB Lead will staff the official AF JEON position to the JS for action.

7.7. Capability Transition Decision. Once the UON/JUON/JEON solution has been initially fielded and an operational assessment completed, the Lead Command will prepare a CTD recommendation to the AFROC. The CTD brief is an assessment of how the solution met the requirement and a recommendation of future utilization of the fielded solution. Lead Commands should begin planning as early as possible for the ultimate disposition of UON/JUON/JEON solutions, and include appropriate CFLI in the planning. See the AF/A5R-P website for additional CTD information.

7.7.1. Solution Assessment. Based on the assessment of operational utility, conducted within 90 days of initial fielding, the Lead Command will recommend one of the following JCIDS assessments:

7.7.1.1. Failure/Limited Success. If the solution failed or had limited success, the Lead Command will verify with the AF Component that the requirement remains valid. If the requirement remains valid, the AFROC will recommend further development of the original solution or another solution be pursued. If the requirement is no longer valid, the AFROC will terminate the UON. There are no JCIDS documents required.

7.7.1.2. Success/ Limited Duration Requirement. If the solution was a success in theater, but is limited in operational effectiveness in additional theaters, the AFROC will recommend that the original solution be maintained In-Theater for the duration of the conflict or until no longer required. There are no JCIDS documents required.

7.7.1.3. Success/Enduring Requirement. If the solution was a success, analysis shows the solution is required in other theaters of operation, it is not intended to be modified from its original configuration and it is financially viable for long-term sustainment the AFROC will recommend that the original solution become an enduring requirement. The Lead Command will document the requirement with an AF Form 1067 or CPD. However, if the solution needs to be modified to facilitate long-term operational capability and/or sustainment the AFROC will recommend that the original solution be sustained until replaced by a follow-on capability. The Lead Command will initiate development of either an AF Form 1067 or CDD as appropriate.

7.7.2. CTD Briefing Information. Based on the recommended solution assessment the following information is required for CTD briefings:

7.7.2.1. UON/JUON/JEON Background Information. Identify the capability gap, summarize the requested capability outlined in the UON/JUON/JEON, and the operational or force management risk of not transitioning the capability. Also identify

the sponsor, validation date, capability fielded and fielding date. (Required for all recommendations.)

7.7.2.2. Provide Assessment of Fielded Capability (MUA Results). Identify the capability assessment period and who conducted the assessment. The assessment shall include a brief description of how the assessment was conducted and provide AF component/CCMD concurrence that UON/JUON/JEON requirement was, or was not fully met. (Required for all recommendations.)

7.7.2.3. Provide a risk assessment for the solution. Assessment should detail how well the solution mitigates the capability gap and the impact of not sustaining the solution. (Required for all recommendations.)

7.7.2.4. Provide Analysis & Traceability to Support Enduring Requirement. Identify Operations Plans, Contingency Plans that require gap capability, identify potential future theaters where solution could be used (is this gap valid outside the current AoR), provide draft KPPs and KSAs. (Required for enduring capability recommendations.)

7.7.2.5. Provide analysis that supports the fielded solution is the preferred solution (i.e. provides the desired requirement and is affordable). If the solution is not the preferred solution provide other recommended alternatives to initiate an AoA at the MDA's direction. (Required for enduring capability recommendations.)

7.7.2.6. Provide cost estimates for sustainment and projected life cycle costs, to include integration impacts to other systems and architectures. (Required for enduring capability recommendations.)

7.7.2.7. Provide an assessment of how the capability does/does not support the CFMP vision and force structure requirements. CFLI assessment of where the capability fits into their CFMP. Take into account the CCMD IPL assessments. (Required for enduring capability recommendations.)

7.8. UON/JUON/JEON Tracking.

7.8.1. MAJCOMs will provide updated UON/JUON/JEON status monthly to the AFROC (unless delegated to the AFRRG by AF/A5R) and maintain current UON/JUON/JEON records in the IRSS database. For UON/JUON/JEON with SAP involvement, MAJCOMs, in coordination with AF/A5R-P Special Projects Branch, will ensure current UON/JUON/JEON status is maintained on the appropriate AFROC Special Session network.

7.8.2. AF/A5R-P will monitor UON/JUON/JEON status through the IRSS database.

Chapter 8

REQUIREMENTS CERTIFICATION TRAINING

8.1. Requirements Manager Certification Training (RMCT). The following guidance outlines training the implementation of the AF RMCT Program.

8.2. Accountability. IAW JCIDS Manual guidance, all DoD organizations are accountable for ensuring responsibility for JCIDS documents rests only with fully trained personnel, especially document content POCs and validation authorities. MAJCOMs will identify and update all of their RMCT positions to AF/A5R-P annually. Additionally, MAJCOMs will report the status of trained personnel semiannually. The following are considered AF key positions for RMCT certification:

8.2.1. Requirements Strategy Development (Sponsors).

8.2.2. Requirements Strategy Review/Approval (HAF).

8.2.3. Study leads, HPT leads, facilitators, and document content POCs (Sponsors), OAS Advisors.

8.2.4. Signatories or approval authority for requirements endorsement, certification, attestation or validation/approval.

8.2.5. AFROC principals/advisors and alternates (as specified in the AFROC charter).

8.2.6. AFRRG principals/advisors and alternates (as specified in the AFRRG charter).

8.2.7. FCB WG, FCB, JCB, JROC representatives (principals and alternates).

8.2.8. **(Added-AFSPC)** Each Directorate or equivalent within HQ AFSPC will assign a POC responsible for tracking Requirements Management Certification Training (RMCT) required personnel and monitoring training completion.

8.3. RMCT Levels. All organizations determine certification levels using the following guidance:

8.3.1. Level A. Duties involve contributing to the JCIDS process by reviewing and commenting on documents, providing technical, domain or subject matter expertise, or support to staffing and coordination of JCIDS documents. Training Required: Orientation Briefing and CLR 101 course. AF Examples: AFROC/AFRRG advisor, AFRRG representative from a non-requirements position (as specified in the Charter) AFROC alternate from a non-requirements position (as specified in the Charter), IRSS POC, executive officer for a requirements senior leader, admin support for JCIDS packages and/or actions.

8.3.2. Level B. Duties include "significant" and direct involvement with JCIDS, requirements generation and document development. Training Required: Orientation Briefing, CLR 101 and RQM 110 courses. AF Examples: Study Lead, HPT Lead, document "Content POC", Requirements/Team Lead, Requirements AO/PEM/Analyst, FCB Working Group action officer, Requirements Branch Chief or Deputy Division Chief.

8.3.3. Level C. Duties are primarily providing leadership and supervision in requirements generation and document development; and organizational representatives to JCIDS forums

to include AFRRG, AFROC, FCB WG, FCB, JCB and JROC. Training Required: Orientation Briefing, CLR 101, RQM 110 and RQM 310 courses. AF Examples: AFRRG representative from a requirements position (as specified by the Charter), AFROC alternate from a requirements position (as specified by the Charter), AF representative to FCB or FCB Integration forums, JCB/JROC alternate or "plus one" (below GO/SES), Requirements Division Chief or Deputy Director (below GO/SES).

8.3.4. Level D. (GO/SES only) Duties include approving draft documents for submittal into JCIDS, providing senior leadership and oversight of analysis/assessments, requirements generation, document development, coordination, and validation/approval. Training Required: Orientation Briefing, RQM 403 (3-star/below) or RQM 413 (4-star). AF Examples: Commander, Vice Commander, Director of Requirements, AFROC member or alternate (as specified in the Charter), JCB/JROC principal or alternate.

8.4. Training and Certification Timeline. Failure to complete the certification training by the applicable suspense date(s) will preclude individuals from participating in the requirements process until training is completed.

8.4.1. Orientation Briefing: completed within first 30 days (standard briefing developed and maintained by AF/A5R-P to be used by all AF organizations).

8.4.2. DAU course(s), IAW JCIDS Manual: completed within first 90 days.

8.4.3. RQM 310 course (level C): completed within the first 6-12 months.

8.4.4. REQ 111 course (select positions) within the first 6-12 months, as available.

8.5. AF Requirements Training Course, REQ 111. AF/A5R and Air Force Institute of Technology (AFIT) provide AF training to complement the DAU-sponsored RMCT courses required for certification. The AF training, REQ 111, Capabilities-Based Operational Requirements Course, is mandatory in addition to RMCT for positions where duties require a working knowledge of AF requirements policy and process (e.g. AF/A5R, MAJCOM Requirements Divisions). Specific information on course schedule and registration is located on the AFIT NOW webpage,

8.6. Organization-level Training. Organizations are encouraged to develop training/orientation to cover their unique policy and process guidance that supports the overarching AF and JCIDS processes.

8.7. Core Plus" Training. Highly recommended as "additional training" for Level B and Level C positions (as determined by the organization). These courses provide more detail to specific topics of interest.

8.7.1. DAU, CLR 151, Analysis of Alternatives.

8.7.2. DAU, CLR 250, Capabilities-Based Assessments.

8.7.3. DAU, CLR 252, Developing Requirements (KPP and KSA).

8.7.4. DAU, ACQ 101, Fundamentals of Systems Acquisition Management.

8.7.5. AFIT, SYS 112, Systems Requirements Document (SRD) Development Course.

8.8. (Added-AFSPC) HQ AFSPC RLs must also complete the following training:

8.8.1. **(Added-AFSPC)** Headquarters Staff Orientation Training Course. Offered monthly (or as needed) by HQ AFSPC/CAA for all newcomers to HQ AFSPC. Must be accomplished within 30-60 days of arrival at the HQ, based on course availability, IAW HQ AFSPC/CA policy memo, *HQ AFSPC Staff Training Course*, dated 14 August 2013.

8.8.2. **(Added-AFSPC)** DoD Decision Support Systems (DSS) Seminar. The DSS Seminar is offered as needed by HQ AFSPC/A5X in conjunction with the HQ AFSPC/CAA Staff Orientation Course, and must be accomplished within 30-60 days of appointment as a RL, based on course availability.

8.8.3. **(Added-AFSPC)** Information and Resource Support System (IRSS) Training. An IRSS Training Guide is available on-line at the HQ AFSPC/A5X web site via the AF Portal. RLs must review the Training Guide prior to obtaining an IRSS account.

BURTON M. FIELD, Lt Gen, USAF
DCS, Operations, Plans, and Requirements

(AFSPC)

MARTIN WHELAN, Major General, USAF
Director of Requirements

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Air Force Requirements Oversight Council Charter

AFPD 10-6, *Capability Requirements Development*, 6 NOVEMBER 2013

AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, 8 March 2007

AFPD 10-28, *Air Force Concept Development & Experimentation*, 17 April 2012

AFPD 16-5, *Planning, Programming, Budgeting and Execution Process*, 27 September 2010

AFPD 16-10, *Modeling and Simulation*, 10 March 2006

AFPD 90-11, *Strategic Planning System*, 26 March 2009

AFI 10-2607, *Air Force Chemical, Biological, Radiological and Nuclear (CBRN) Survivability*, 25 February 10

AFI 10-2801, *Concept Development*, 24 October 2005

AFI 10-2802, *Air Force Experimentation*, 20 February 2013

AFI 14-111, *Intelligence Support to the Acquisition Life Cycle*, 18 May 2012

AFI 14-205, *Geospatial Information & Services (GI&S)*, 5 May 2010

AFI 33-108, *Compatibility, Interoperability, and Integration of Command, Control, Communications, and Computer (C4) Systems*, 14 July 1994

AFI 63-101/20-101, *Integrated Life Cycle Management*, 7 March 2013

AFI 63-104, *The SEEK EAGLE Program*, 21 January 2005

AFI 63-114, *Quick Reaction Capability Process*, 4 January 2011

AFI 63-131, *Modification Management*, 19 March 2013

AFI 90-1601, *Air Force Lessons Learned Program*, 22 September 2010

AFI 99-103, *Capabilities-Based Test and Evaluation*, 26 February 2008

AFMAN 33-363, *Management of Records*, 1 March 2008

CJCSI 3150.25, *Joint Lessons Learned Program*, 20 April 2012

CJCSI 3170.01H, *Joint Capabilities Integration and Development System*, 10 January 2012

CJCSI 3312.01, *Joint Military Intelligence Requirements Certification*, 10 June 2010

CJCSI 5123.01F, *Charter of the Joint Requirements Oversight Council*, 10 January 2012

CJCSI 6212.01F, *Net Ready Key Performance Parameter, 21 Mar 2012*

DoDAF v2.0, *Department of Defense Architecture Framework*, 28 May 2009

DoDD 5000.01, *Defense Acquisition System*, 20 November 2007

DoDI 5000.02, *Operation of the Defense Acquisition System*, 8 December 2008

DoDI 3150.09, *The Chemical, Biological, Radiological, and Nuclear (CBRN) Survivability Policy*, 17 August 2009

DoDI 5030.55, *DoD Procedures for Joint DoD-DOE Nuclear Weapons Life-Cycle Activities,* 25 January 2001

Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 8 November 2010

JS/J8, *Manual for the Operation of the Joint Capabilities Integration and Development System*, 19 January 2012

JS *Joint Capabilities Areas*, 8 April 2011

AFMC/OAS *Analysis Handbook*

Adopted Forms

AF Form 1067, Modification Proposal

AF Form 847, Recommendation for Change of Publication

DD Form 250, Material Inspection and Receiving Report

NOTE: *Some websites require AF Portal sign-on to gain access.*

AF/A5R-P Requirements: **https://www.my.af.mil/gcss-af/afp40/USAF/ep/globalTab.do?command=org&channelPageId=-569424&pageId=681742**

JCIDS Manual: **https://www.intelink.gov/wiki/JCIDS** Manual

JCIDS CBA guidance: **http://www.intelink.sgov.gov/wiki/Capabilities_Based_Assessment**

AF e-Publishing: **http://www.e-publishing.af.mil/**

Abbreviations and Acronyms

AAR—After Action Report

ACAT—Acquisition Category

ACC—Air Combat Command

ADM—Acquisition Decision Memorandum

AFCAA—Air Force Cost Analysis Agency

AFGK—Air Force Gatekeeper

AFGSC—Air Force Global Strike Command

AFIT—Air Force Institute of Technology

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

AFRB—Air Force Review Board

AFROC—Air Force Requirements Oversight Council

AFROCM—Air Force Requirements Oversight Council Memorandum

AFRRG—Air Force Requirements Review Group

AFSPC—Air Force Space Command

AFSOC—Air Force Special Operations Command

AMC—Air Mobility Command

AoA—Analysis of Alternatives

CAPE—Cost Assessment and Program Evaluation

CBA—Capabilities-Based Assessment

CBRN—Chemical, Biological, Radiological, and Nuclear

CC—Commander

CCMD—Combatant Command

CCTD—Concept Characterization and Technical Description

CDD—Capability Development Document

CFLI—Core Function Lead Integrator

CFMP—Core Function Master Plan

CI—Configuration Item

CJCS—Chairman, Joint Chiefs of Staff

CJCSI—Chairman, Joint Chief of Staff Instruction

COA—Course of Action

CONOPS—Concept of Operations

COTS—Commercial Off The Shelf

CPD—Capability Production Document

CRM—Comment Resolution Matrix

CSAF—Chief of Staff of the United States Air Force

CV—Vice Commander

DAB—Defense Acquisition Board

DAU—Defense Acquisition University

DBS—Defense Business Systems

DBSMC—Defense Business Systems Management Committee

D/CAPE—Director, Cost Assessment and Program Evaluation

DCR—DOTmLPF-P Change Recommendation

DoD—Department of Defense

DOE—Department of Energy

DOTmLPF—P – Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities, and Policy (Where "m" is non-developmental materiel)

DRU—Direct Reporting Unit

EA—Evolutionary Acquisition

EMD—Engineering and Manufacturing Development

FCB—Functional Capabilities Board

FCC—Flagship Capability Concepts

FOA—Field Operating Agency

FY—Fiscal Year

FYDP—Future Years Defense Program

GOTS—Government Off The Shelf

HPT—High Performance Team

HQ USAF or HAF—Headquarters Air Force, includes the Secretariat and the Air Staff

HSI—Human Systems Integration

ICD—Initial Capabilities Document

IMD—Intelligence Mission Data

IOC—Initial Operational Capability

IPL—Integrated Priority List

IRSS—Information & Resource Support System

IS—Information System

IS—CDD – Information System Capability Development Document

IS—ICD – Information System Initial Capabilities Document

ISP—Information Support Plan

JCA—Joint Capability Area

JCB—Joint Capabilities Board

JCIDS—Joint Capabilities Integration and Development System

JCTD—Joint Capability Technology Demonstration

JEON—Joint Emergent Operational Need

JLLP—Joint Lessons Learned Program

JROC—Joint Requirements Oversight Council

JROCM—Joint Requirements Oversight Council Memorandum

JS—Joint Staff

JS J8/Gatekeeper—Joint Staff J8 Gatekeeper

JSD—Joint Staffing Designator

JUON—Joint Urgent Operational Need

JWICS—Joint Worldwide Intelligence Communications System

KPP—Key Performance Parameter

KSA—Key System Attribute

LCSP—Life Cycle Support Plan

LMDP—Life Cycle Mission Data Plan

LRIP—Low-Rate Initial Production

MAJCOM—Major Command

MDA—Milestone Decision Authority

MDD—Materiel Development Decision

MOE—Measure of Effectiveness

MOP—Measure of Performance

M&S—Modeling and Simulation

MS—Milestone

MUA—Military Utility Assessment

NDI—Non-Developmental Item

NGB—National Guard Bureau

NR KPP—Net Ready Key Performance Parameter

NSS—National Security System

NWC—Nuclear Weapons Council

OAS—Office of Aerospace Studies

OPR—Office of Primary Responsibility

OSD—Office of the Secretary of Defense

OT&E—Operational Test and Evaluation

OV—1 – Operational View 1

PM—Program Manager

POC—Point of Contact

PPBE—Planning, Programming, Budgeting, and Execution

QRC—Quick Reaction Capability

RDT&E—Research, Development, Test and Evaluation

RFP—Request for Proposal

RMCT—Requirements Manager Certification Training

ROM—Rough Order of Magnitude

RSR—Requirements Strategy Review

S&T—Science and Technology

SAP—Special Access Program

SecAF—Secretary of the Air Force

SEP—System Engineering Plan

SME—Subject Matter Expert

SRD—System Requirements Document

T&E—Test and Evaluation

TDS—Technology Development Strategy

TEMP—Test and Evaluation Master Plan

UON—Urgent Operational Need

USD (AT&L)—Under Secretary of Defense (Acquisition, Technology and Logistics)

USAF—United States Air Force

VCSAF—Vice Chief of Staff of the United States Air Force

Terms

NOTE:—The purpose of this glossary is to help the reader understand the terms listed as used in this publication. It is not intended to encompass all terms. See pertinent Joint and AF specific publications for standardized terms and definitions for DoD and AF use.

Acquisition Category (ACAT)— Categories established to facilitate decentralized decision making and execution, and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority, and applicable procedures. See DoDI 5000.02 for additional ACAT information.

Additional Attribute— A characteristic so significant it must be verified by testing or analysis. Whenever possible, attributes should be stated in terms that reflect the capabilities necessary to operate in the full range of military operations and the environment intended for the system, family of systems (FoS), or system of systems (SoS). Additional attributes must be measurable, testable, and quantifiable, and require AF/A5R approval (or delegate) to change.

Affordability— The degree to which the life-cycle cost of an acquisition program is in consonance with the long-range modernization, force structure, and manpower plans of the individual DoD Components (military departments and defense agencies), as well as for the Department as a whole. For major defense acquisition programs, affordability assessments are required at Milestones B and C. The purpose of the assessment is for the DoD Component to

demonstrate that the programs projected funding and manpower requirements are realistic and achievable, in the context of the DoD Component's overall long-range modernization plan. Affordability constraints force prioritization of requirements, drive performance and cost trades, and ensure that unaffordable programs do not enter the acquisition process. If affordability caps are breached, costs must be reduced or else program cancelation can be expected. Constraints stem from long-term affordability planning and analysis, which is a Component leadership responsibility that should involve the Component's programming, resource planning, requirements, and acquisition communities. Affordability is reviewed during AFRRG and AFROC reviews.

AF Form 1067 Modification Proposal— An AF Form 1067 documents the submission, review, and approval of requirements for modifications to fielded AF systems.

AF Gatekeeper— The AFGK reviews any previous requirements documentation, updated requirements documentation, and any additional required requirements materials intended to be presented for AFRRG or AFROC review. The AFGK also conducts follow-on RSRs and determines HPT membership and format (i.e. live or virtual) for the AoA Study Plan, Draft CDDs, CDDs and CPDs.

Analysis of Alternatives (AoA)— The AoA is an analytical comparison of the operational effectiveness, suitability, risk, and life cycle cost of alternatives that satisfy established capability needs stipulated in an approved ICD. The AoA helps decision makers select courses of action (COA) to satisfy an operational capability need.

Architecture— (1) The fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principals guiding its design and evolution. [IEEE STD 1471-2000]. (2) The structure of components, their relationships and the principals and guidelines governing their design and evolution over time [Federal Enterprise Architecture.]

Capabilities-Based Assessment (CBA)— The CBA is the Joint Capabilities Integration and Development System analysis process. It answers several key questions for the validation authority before their approval: define the mission; identify capabilities required; determine the attributes/standards of the capabilities; identify gaps/shortfalls; assess operational risk associated with the gaps/shortfalls; prioritize the gaps/shortfalls; identify and assess potential non-materiel solutions; provide recommendations for addressing the gaps/shortfalls.

Capability— The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways across the doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTmLPF-P) to perform a set of tasks to execute a specified course of action.

Capability Development Document (CDD)— A document that captures the information necessary to develop a proposed program(s), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable, and technically mature capability. The CDD may define multiple increments if there is sufficient definition of the performance attributes (KPPs, KSAs, and other attributes) to allow approval of multiple increments.

Capability Gaps— The inability to execute a specified course of action. The gap may be the result of no existing capability, lack of proficiency or sufficiency in an existing capability solution, or the need to replace an existing capability solution to prevent a future gap.

Capability Production Document (CPD)— A document that addresses the production elements specific to a single increment of an acquisition program. The CPD defines an increment of militarily useful, logistically supportable, and technically mature capability that is ready for a production decision. The CPD defines a single increment of the performance attributes (KPPs, KSAs, and other attributes) to support a MS C decision.

Capability Requirement (or Requirement)— A capability which is required to meet an organization's roles, functions, and missions in current or future operations. To the greatest extent possible, capability requirements are described in relation to tasks, standards and conditions in accordance with the Universal Joint Task List or equivalent DoD Component Task List. If a capability requirement is not satisfied by a capability solution, then there is also an associated capability gap which carries a certain amount of risk until eliminated. A requirement is considered to be 'draft' or 'proposed' until validated by the appropriate authority.

Capability Shortfall— See Capability Gap.

Capability Solution— A materiel solution or non-materiel solution to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps.

CBRN Mission Critical— A mission-critical system with operational concepts requiring employment and survivability in chemical, biological, radiological and/or nuclear (including electromagnetic pulse) environments.

Certification— A statement of adequacy provided by a responsible agency for a specific area of concern in support of the validation process.

Combatant Commander— A commander of one of the unified or specified combatant commands established by the President.

Concept— A visualization of future operations; describes how a force, using military art and science, might employ capabilities necessary to meet future military challenges. Links strategic guidance, planning process and plans to the development and employment of future Air Force capabilities. Concepts serve as "engines for transformation" that may ultimately lead to doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) and policy changes.

Concept Characterization and Technical Description (CCTD)— The CCTD captures essential information about a prospective materiel approach to address an identified capability need. CCTD preparation begins when the capabilities-based planning process determines that a materiel approach may be necessary to address an identified gap. Information in the CCTD can assist in early decisions associated with narrowing down the analytical trade space of materiel solutions, and provides the initial technical baseline upon which subsequent analyses and documents are built. Guidance on CCTD development is available from SAF/AQR.

Concept of Operations (CONOPS)— A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The CONOPS frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out

simultaneously or in succession. The concept is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose (also called a commander's concept).

Configuration Item— A configuration item is hardware, firmware or software component , or a combination thereof, which satisfies an end use function and is designated for separate configuration management. Hardware Configuration Items are typically referred to by an alphanumeric identifier, while Software Configuration Items are typically assigned a computer program identification number.

Course of Action (COA)— The COA is a planning and decision process that culminates in a sponsor decision. It principally refers to the decision to proceed or not proceed with development of one or more prospective materiel solutions as informed by an AoA. The COA includes a series of alternative program choices developed by the MDA or designate, presented to a sponsor and that once a specific COA is selected, becomes a formal agreement between the MDA and the operator (usually Lead Command Commander) that clearly articulates the performance, schedule, and life cycle cost expectations of the program. The COA provides the basis for the Technology Development Strategy during the Technology Development phase.

Defense Business System— The term "defense business system" means an information system, other than a national security system, operated by, for, or on behalf of the Department of Defense, including financial systems, mixed systems, financial data feeder systems, and information technology and information assurance infrastructure, used to support business activities, such as acquisition, financial management, logistics, strategic planning and budgeting, installations and environment, and human resource management.

DD Form 250— The DD Form 250 (Material Inspection and Receiving Report) is a multipurpose report used: (1) provide evidence of acceptance at origin/destination; (2) to provide evidence of Government contract quality assurance at origin/destination; (3) for supply packing list(s); (4) for document shipping/receiving; (5) as a contractor invoice; and (6) commercial invoice support.

Development Planning (DP)— Development Planning (DP) encompasses the engineering analysis and technical planning activities that provide the foundation for informed investment decisions on the fundamental path a materiel development will follow to effectively and affordably meet operational needs.

DoD 5000 Series— DOD 5000 series refers collectively to DODD 5000.01, DODI 5000.02., *The Defense Acquisition Guide* (DAG), and other relevant DoD 5XXX publications.

DoD Components— The DoD components consist of the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the combatant commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, DoD Field Activities, and all other organizational entities within the Department of Defense.

Environment— Air, space, water, land, weather, living things, built infrastructure, cultural resources, and the interrelationships that exist among them.

Experimentation— An iterative process from developing and assessing concept-based hypotheses to identify and recommend the best value-added solutions for changes in doctrine,

organization, training, materiel, leadership and education, personnel and facilities and policy required to achieve significant advances in future joint operational capabilities.

Experiment— A process to explore the effects of manipulating a variable; an analytical activity to determine the efficiency of something previously untried, examine the validity of a hypothesis, or demonstrate a known or believed truth within a specific context.

Evolutionary Acquisition (EA)— Evolutionary acquisition is the preferred DoD strategy for rapid acquisition of mature technology for the sponsor. An evolutionary approach delivers capability in increments, recognizing, up-front, the need for a future capability improvements. The objective is to balance needs and available capability with resources, and to put capability into the hands of the warfighter quickly.

Feasible— A requirement that is technically achievable and executable within the estimated schedule and budgeted life cycle cost.

Flagship Capability Concept— An integrated technology project collaboratively developed by MAJCOM(s), Center(s), and AFRL that: addresses a documented and prioritized MAJCOM capability need, is commissioned via AF S&T Governance structure, and is linked to a Service Core Function Master Plan.

Full Operational Capability— Full attainment of the capability to effectively employ a weapon, item of equipment or system of approved specific characteristics, which is manned and operated by a trained, equipped and supported military force or unit. The specifics for any particular system FOC are defined in that system's Capability Development Document and Capability Production Document.

Functional Capabilities Board (FCB)— A permanently established body that is responsible for the organization, analysis, and prioritization of Joint warfighting capabilities within an assigned functional area.

Human Systems Integration (HSI)— Includes the integrated and comprehensive analysis, design and assessment of requirements, concepts and resources for system manpower, personnel, training, environment, safety, occupational health, habitability, survivability, and human factors engineering.

Implementing Command— The command (usually Air Force Materiel Command or Air Force Space Command) providing the majority of personnel in direct support of the program manager responsible for development, production, and sustainment activities.

Increment— A militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed, and sustained. Each increment of capability will have its own set of threshold and objective values set by the sponsor. Technology is developed to a desired maturity and injected into the delivery of an increment of capability.

Information & Resource Support System (IRSS)— IRSS is web-based AF-wide automated system that provides the requirements community the ability to develop, coordinate, task, track, and store all operational capability requirements documents (i.e., ICDs, CDDs, CPDs), along with their associated analysis and briefings, within the AF requirements process. IRSS resides on the AF SIPRNET Portal.

Information Support Plan (ISP)— The identification and documentation of information needs, infrastructure support, IT and NSS interface requirements and dependencies focusing on net-centric, interoperability, supportability, and sufficiency concerns.

Information System (IS)— As defined by CJCSI 6212.01, is any equipment, or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information, and includes computers and computer networks, ancillary equipment, software, firmware and similar procedures, services (including support services) and related resources. Notwithstanding the above, the term information technology (IT) does not include any equipment that is acquired by a federal contractor incidental to a federal contract. The term information systems is used synonymously with IT (to include National Security Systems)

Initial Capabilities Document (ICD)— Summarizes the CBA and recommends a materiel approach or a combination of materiel and non-materiel approaches to satisfy specific capability gaps/shortfalls. It defines the capability gap(s) in terms of the functional area, the relevant range of military operations, desired effects, time, and DOTmLPF-P and policy implications and constraints. The ICD summarizes the results of the DOTmLPF-P analysis and the DOTmLPF-P approaches (materiel and non-materiel) that may deliver the required capability. The outcome of an ICD could be one or more Joint DOTmLPF-P change recommendations or CDDs and/or CPDs.

Initial Operational Capability (IOC)— That first attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained and equipped personnel necessary to operate, maintain, and support the system. It is normally defined in the CDD. *NOTE:* IOC is event-driven and not tied to a specific future date.

Intelligence Mission Data (IMD)— DoD intelligence used for programming platform mission systems in development, testing, operations, and sustainment including, but not limited to, the functional areas of signatures, Electronic Warfare Integrated Reprogramming Collection and Processing, and Geospatial Intelligence.

Intelligence-Sensitive— Any program/initiative that consumes, processes or produces intelligence information, thereby requiring threat or intelligence infrastructure support, and which will be measured and evaluated by a program or project office in terms of cost, performance, and impact on warfighter capabilities and fielding, shall be considered intelligence-sensitive. If it is likely that, in the future, the program/initiative would produce, consume, process, or handle intelligence information, then it should be considered intelligence-sensitive.

Intelligence Support— The totality of resources needed to ensure effective operation of a system once operational from an intelligence perspective. This includes intelligence people, products, processes, systems, training, and/or facilities.

Interoperability— The ability of systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces and to use the data, information, materiel, and services so exchanged to enable them to operate effectively together. IT and NSS interoperability includes both the technical exchange of information and the end-to-end operational effectiveness of that exchange of information as required for mission

accomplishment. Interoperability is more than just information exchange. It includes systems, processes, procedures, organizations and missions over the life cycle and must be balanced with information assurance.

Joint Capability Area (JCA)— Collections of like DOD capabilities functionally grouped to support capability analysis, strategy development, investment decision making, capability portfolio management, and operational force development and operational planning. See CJCSI 3170.01 for additional information.

Joint Capabilities Board (JCB)— The JCB functions to assist the Joint Requirements Oversight Council (JROC) in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all operational capability requirements and Joint DOTmLPF-P change recommendation documents before their submission to the JROC. The JCB is chaired by the Joint Staff Director of Force Structure, Resources and Assessment (JS/J8). It is comprised of general and flag officer representatives of the Services.

Joint Capability Technology Demonstration (JCTD)— A demonstration of the military utility of a significant new technology and an assessment to clearly establish operational utility and system integrity.

Joint Emergent Operational Need— A JEON is an emergent need driven by anticipated contingency operations that require synchronization across multiple Service/agencies. Development and fielding timelines are longer than UONs/JUONs with expected initial fielding occurring up to five years after validation.

Joint Force— A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments operating under a single Joint force commander.

Joint Operational Environment— The environment of land, sea, and/or airspace within which a Joint force commander employs capabilities to execute assigned missions.

Joint Staff/J8 Gatekeeper— That individual who makes the initial JSD of operational capability requirements documents. This individual will also make a determination of the lead and supporting Functional Capabilities Boards (FCBs) for capability documents. The Gatekeeper is supported in these functions by the FCB working group leads and the JS/J6. The Joint Staff Deputy Director for Requirements, JS/J8, serves as the JCIDS Gatekeeper.

Joint Staffing Designator (JSD)— A designation assigned by the JS/J8 Gatekeeper to determine the Joint Capabilities Integration and Development System validation and approval process and the potential requirement for certifications and/or endorsements. See the JCIDS Manual for the JSD definitions.

Joint Requirements Oversight Council Memorandum (JROCM)— Official JROC correspondence generally directed to an audience(s) external to the JROC – usually decisional in nature.

Joint Urgent Operational Needs (JUON)— An urgent operational need identified by a combatant commander involved in an ongoing named operation. A JUON's main purpose is to identify and subsequently gain Joint Staff validation and resourcing solution, usually within days or weeks, to meet a specific high-priority combatant commander need. The scope of a combatant commander JUON will be limited to addressing urgent operational needs that: (1) fall outside of the established Service processes; and (2) most importantly, if not addressed

immediately, will seriously endanger personnel or pose a major threat to ongoing operations. They should not involve the development of a new technology or capability; however, the acceleration of a JCTD or modification of an existing system to adapt to a new or similar mission is within the scope of the JUON validation and resourcing process.

Key Performance Parameter (KPP)— An attribute or characteristic considered critical or essential to the development of an effective military capability. KPPs must be measurable, testable, and quantifiable, supported by analytic rigor that demonstrates its operational utility and the need for resource investment. CDD and CPD KPPs are included verbatim in the acquisition program baseline. KPP changes require VCSAF approval (or delegate).

Key System Attribute (KSA)— An attribute or characteristic considered crucial to achieving a balanced solution/approach to a capability, but not critical enough to be designated a KPP. KSAs provide decision makers with an additional level of capability performance characteristics (a priority) below the KPP level. KSAs must be measurable, testable, and quantifiable, and require VCSAF approval (or delegate) to change.

Lead Command— The command that serves as operators' interface with the Program Manager for a system as defined by AFPD 10-9.

Low-Rate Initial Production (LRIP)— Production of the system in the minimum quantity necessary (1) to provide production-configured or representative articles for operational tests pursuant to Title 10 §2399; (2) to establish an initial production base for the system; and (3) to permit an orderly increase in the production rate for the system sufficient to lead to full-rate production upon the successful completion of operational testing.

Materiel Development Decision (MDD)— The Materiel Development Decision review is the formal entry point into the acquisition management system and is mandatory for all programs. At the MDD, the MDA approves the AoA Study Guidance; determines the acquisition phase of entry; identifies the initial review milestone; and designates the lead DoD Component(s).

Materiel Solution— Correction of a deficiency, satisfaction of a capability gap, or incorporation of new technology that results in the development, acquisition, procurement, or fielding of a new item (including ships, tanks, self-propelled weapons, aircraft, and related software & data, spares, repair parts, and support equipment, but excluding real property, installations, and utilities). In the case of family of systems and system of systems approaches, an individual materiel solution may not fully satisfy a necessary capability gap on its own.

Milestones— Major decision points that separate the phases of an acquisition program.

Milestone Decision Authority (MDA)— The individual designated, in accordance with criteria established by the Under Secretary of Defense for Acquisition, Technology and Logistics, the Assistant Secretary of Defense (Networks and Information Integration), for Automated Information System acquisition programs, to approve entry of an acquisition program into the next phase.

Militarily Useful Capability— A capability that achieves military objectives through operational effectiveness, suitability and availability, which is interoperable with related systems and processes, transportable and sustainable when and where needed and at costs known to be affordable over the long term.

Modification— An alteration to a configuration item applicable to a warfighter system (i.e., aircraft, missiles, support equipment, ground stations software (imbedded), and trainers). As a minimum, the alteration changes the form, fit, function or interface of the item.

Non-Materiel Solution— Changes in doctrine, organization, training, materiel, leadership and education, personnel, facilities, or policy (including all HSI domains) to satisfy identified functional capabilities. The materiel portion is restricted to commercial or non-developmental items that may be purchased commercially or by purchasing more systems from an existing materiel program. The acquisition of the materiel portion must comply with all acquisition policies.

Objective Value— Objective Value - Developed only when absolutely necessary, it is the desired operational goal associated with a performance attribute beyond which any gain in utility does not warrant additional expenditure. The objective value is an operationally significant increment above the threshold. An objective value will be the same as the threshold when an operationally significant increment above the threshold is not significant or useful. The default value for Objectives in AF requirements documents will be the Threshold value (i.e., T = O). In those situations where an objective value is required, the objective value must be analytically justified in terms of operational risk and impacts to program cost and schedule.

Operating Command— Those commands operating a system, subsystem, or item of equipment.

Operational Capability— The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways across the doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTmLPF-P) to perform a set of tasks to execute a specified course of action. It is defined by an operational sponsor and expressed in broad operational terms in the format of an initial capabilities document or a Joint DOTmLPF-P change recommendation. In the case of materiel proposals/documents, the definition will progressively evolve to DOTmLPF-P performance attributes identified in the capability development document and the capability production document.

Operational Capability Requirements Document— An ICD, IS-ICD, Draft CDD, CDD, IS-CDD, CPD, or Joint DCR.

Operational Suitability— The degree to which a system can be placed and sustained satisfactorily in field use with consideration given to availability, compatibility, transportability, interoperability, reliability, wartime usage rates, maintainability, environmental, safety and occupational health, human factors, habitability, manpower, logistics, supportability, natural environment effects and impacts, documentation, and training requirements.

Operational Effectiveness— Measure of the overall ability to accomplish a mission when used by representative personnel in the environment planned or expected for operational employment of the system considering organization, doctrine, supportability, survivability, vulnerability, and threat.

Operator— An operational command or agency that employs acquired systems for the benefit of warfighters. Operators may also be warfighters.

Operational Test and Evaluation (OT&E)— Testing and evaluation conducted in as realistic an operational environment as possible to estimate the prospective system's operational capabilities and limitations. In addition, OT&E provides information on operational

effectiveness and suitability, organization, personnel requirements, doctrine, and tactics. It may also provide data to support or verify material in operating instructions, publications, and handbooks. *NOTE:* The term OT&E is often substituted for IOT&E, QOT&E, or FOT&E, and depending on the context, has the same meaning as those terms.

Program Manager (PM)— As used in this instruction applies collectively to System Program Director, Product Group Manager, Single Manager, or acquisition program manager. The PM is the designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the sponsor's operational needs. The PM shall be accountable for credible life cycle cost, schedule, and performance reporting to the MDA.

Quick Reaction Capability— An expedited process for documenting and staffing materiel solutions to urgent, time-sensitive requirements. The process is fully described in AFI 63-114.

Requirement— see Capability Requirement.

Requirements Manager— A military manager or DOD civilian manager charged with assessing, developing, validating, and prioritizing requirements and associated requirements products through the Joint Capabilities Integration and Development System process. Requirements managers are identified by the sponsor and are certified by Defense Acquisition University upon completion of the appropriate courses.

Requirements Risk Assessment— The requirements risk assessment provides the AFROC the level of risk to the applicable service core function if a capability requirement is not executed and how the risk will change if the capability requirement is executed. Additionally, the requirements risk assessment is used in 1) establishing the justification to proceed with next step in the JCIDS process (specifically the ICD) 2) to provide a relative comparison of AF programs for use by the AF principal during FCB prioritization discussions and 3) to inform the AF planning and programming process to better shape the future force. The requirements risk assessment encompasses those capabilities for which the AF is pursuing a materiel solution. Specifically, those capabilities that will lead to development of ICDs and CDDs. A risk assessment must be accomplished for every capability seeking AFROC validation.

Requirements Strategy Review (RSR)— A strategy review conducted by the AFRRG to determine the best way to mitigate a capability gap, either by pursuing a non-materiel solution or entering the JCIDS requirements process.

Sponsor— The organization responsible for documentation, periodic reporting, and funding actions necessary to support needed capabilities (e.g., MAJCOM, FOA, DRU).

Stakeholder— personnel or organizations (e.g., warfighters, sponsor, or agencies), who are actively involved in the development of the capability or whose interests may be positively or negatively affected by the performance of the capability.

Threshold— A minimum acceptable operational value below which the utility of the system becomes questionable.

Urgent Operational Need— UONs are AF specific needs identified during conflict or crisis situations that if not satisfied in an expedited manner, would result in unacceptable loss of life or critical mission failure.

Validation— The review of documentation by an operational authority other than the sponsor to confirm the operational capability. Validation is a precursor to approval.

Warfighter— An operational command or agency that receives or will receive benefit from the acquired system. Combatant commanders and their Service component commands are the warfighters. There may be more than one warfighter for a capability.

Attachment 1 (AFSPC)

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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AFI 63-131, *Modification Management,* 19 March 2013
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AFPD 33-2, *Information Assurance (IA) Program,* 3 August 2011
AFSPCI 10-102, *Concept Development,* 13 March 2013
AFSPCI 10-205, *Operational Transition Process,* 10 December 2013
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CJCSI 3312.01, *Joint Military Intelligence Requirements Certification,* 10 June 2012
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DoDI 8260.01, *Support for Strategic Analysis,* 7 July 2011
DoDI 4630.08, *Procedures for Interoperability and Supportability of Information Technology and National Security Systems,* 30 June 2004
DIAI 5000.002, *Intelligence Threat Support for Major Defense Acquisition Programs,* 23 August 2005

Adopted Forms

AF Form 1067, *Modification Requests*

Abbreviations and Acronyms

AoA —Analysis of Alternatives
AFLCMC —Air Force Life Cycle Management Center
AFNET —Air Force Network
AFNIC —Air Force Network Integrated Center
AFROC —Air Force Requirements Oversight Council
ASF —Architecture Synchronization Forum
C&I —Communications and Information
CDD —Capability Development Document
CFSP —Core Function Support Plans
CONOPS —Concept of Operations
CPD —Capability Production Document
CRB —Configuration Review Board
DCR —DOTmLPF-P Change Recommendation
DOTmLPF-P —Doctrine, Organization, Training, material, Leadership and Education,

Personnel, Facilities, and Policy (Where “m” is non-developmental material)
DP —Development Planning
FCB —Functional Capabilities Board
FFI —Form, Fit, Function or Interface
FOC —Full Operational Capability
GIG —Global Information Grid
GTG-F —GIG Technical Guidance – Federation
HPT —High Performance Teams
ICD —Initial Capabilities Document
ICT —Integrated Concept Team
IOC —Initial Operation Capability
IPP —Integrated Planning Process
IS-ICD —Information System Initial Capabilities Document
ISP —Information Support Plan
JCB —Joint Capabilities Board
JROC —Joint Requirements Oversight Council
MDA —Missile Defense Agency
NGA —National Geospatial Agency
NRO —National Reconnaissance Office
O&M —Operations and Maintenance
PE —Program Element
PEM —Program Element Monitor
PKI —Public Key Infrastructure
PL —Protection Level
PM —Program Manager
POR —Program of Record
PPBE —Planning, Programming, Budgeting, and Execution
R&D —Research and Development
RCA —Rapid Cyber Acquisition
RFP —Request for Proposal
RL —Requirements Team Lead
RMCT —Requirements Management Certification Training
RSR —Requirements Strategy Review
RTO&I —Real Time Operations and Innovation
S&T —Science & Technology
SIO —Senior Intelligence Officer
SMC —Space and Missile Center
SRD —System Requirements Documents
TPT —Training Planning Team
VCB —Validation and Certification Board
VTC —Video Teleconference
WST —Weapon System Teams

Attachment 2

WARFIGHTER URGENT OPERATIONAL NEEDS

Figure A2.1. Warfighter Urgent Operational Needs

WARFIGHTER URGENT OPERATIONAL NEEDS

Recommended Format

NOTE: This is a recommended format. The distribution addressees are mandatory. Requests should focus on identifying a capability gap or shortfall and any constraints that might impact selection of a solution. This format is provided to help the warfighter communicate the need. To ensure full understanding of the need and realistic expectations, the warfighter should contact the AF/A5R, SAF/AQX and the Lead Command as early as possible when considering submission of a UON.

****NOTE: SIPRNET e-mail is the required method for submitting a UON****

MEMORANDUM FOR AF/A5R, SAF/AQX, LEAD COMMAND (as applicable) DATE

FROM: Warfighting Commander

SUBJECT: Urgent Operational Need For (title of deficiency; if possible use an unclassified title)

MISSION DESCRIPTION. Identify the operation and theater being supported. Identify the general mission area where the urgent operational deficiency exists (e.g., electronic combat, aircrew chemical defense, command and control, precision strike). If applicable, identify the specific system or platform (e.g., B-52, F-15, JDAM) associated with the request.

REQUIRED CAPABILITY. Describe in broad terms the relevant capability or capabilities needed to address the mission area identified in the previous paragraph. This should include desired effects and outcomes as well as the tasks and functions that must be performed.

URGENT OPERATIONAL NEED. Describe the capability shortfall or gap as specifically as possible to include the tasks or functions that cannot be accomplished or that are unacceptably limited. Identify whether the gap is due to no existing capability, deficiency in a fielded capability, or an effective capability fielded in insufficient quantities.

KEY CHARACTERISTICS: If applicable, describe any key characteristics required for the solution and the minimum level of performance for these characteristics. Speed, range, payload, accuracy, reliability, interoperability, and mission availability are examples of characteristics. If multiple characteristics are provided, they should be prioritized based on their value to the warfighter.

PRIORITY: Describe how this urgent need ranks in priority compared to other urgent needs identified by the commander that have not yet been delivered.

REQUIRED QUANTITIES: Identify quantities required. Include expected quantities required for spares and/or training activities.

IMPACT IF CAPABILITY NOT PROVIDED: Discuss the risks to human life and mission success and how these risks will be mitigated if the capability is not provided.

CONSTRAINTS. Identify constraints, qualifications, or circumstances that could impact the design or selection of a solution.

THREAT AND OPERATIONAL ENVIRONMENT. Describe in general terms the operational environment in which the capability will be used and the manner in which it will be employed including any biological, chemical, electromagnetic, or climatological considerations.

INTEROPERABILITY. Identify and discuss any interoperability considerations for the solution such as systems and interfaces through which it will exchange information. Availability or limitations on command, control, communications and intelligence support; mission planning data: weather, oceanographic and astrogeophysical support should be discussed. Identify any other systems with which the solution must interact.

TIMEFRAME. Identify the required IOC date. If possible, avoid using terms such as ASAP. If known, identify how long the capability will be needed.

OTHER CONSTRAINTS. Discuss any other constraints including (but not limited to) arms control treaties; logistics support; life cycle sustainment issues; transportation availability; manpower; training; human factors; environmental; safety; occupational health hazards; technology protection; system security engineering; and non-military sensitivities.

RECOMMENDATIONS. Briefly discuss any materiel or non-materiel solutions considered by the warfighter. If the warfighter has identified a preferred or recommended solution, it should be provided in this paragraph.

POINTS OF CONTACT (POCs). Identify the approving commander and one or more POCs that can be contacted regarding this urgent need. Provide name, grade, office symbol, phone number (DSN and/or Commercial) and email address (NIPRNET and SIPRNET).
Include classification markings on all paragraphs and SUBJECT line (even if UNCLASS). If classified, include classification source and declassification instructions.

DISTRIBUTION LIST: At a minimum the UON request must be sent to the following email addresses:

AF/A5R at (SIPRNET: **a5r.scats@af.pentagon.smil.mil)**
AFMC/A5C at (SIPRNET: **afmc.a5c@afmc.af.smil.mil**),
SAF/AQX at (SIPRNET: **saf.aqx@af.pentagon.smil.mil**)
Additionally include appropriate CCMD agencies: e.g., CENTCOM/J3